APRIL 2016

intercom

THE MAGAZINE OF THE SOCIETY FOR TECHNICAL COMMUNICATION

TRANSPARENT DOCUMENTATION:

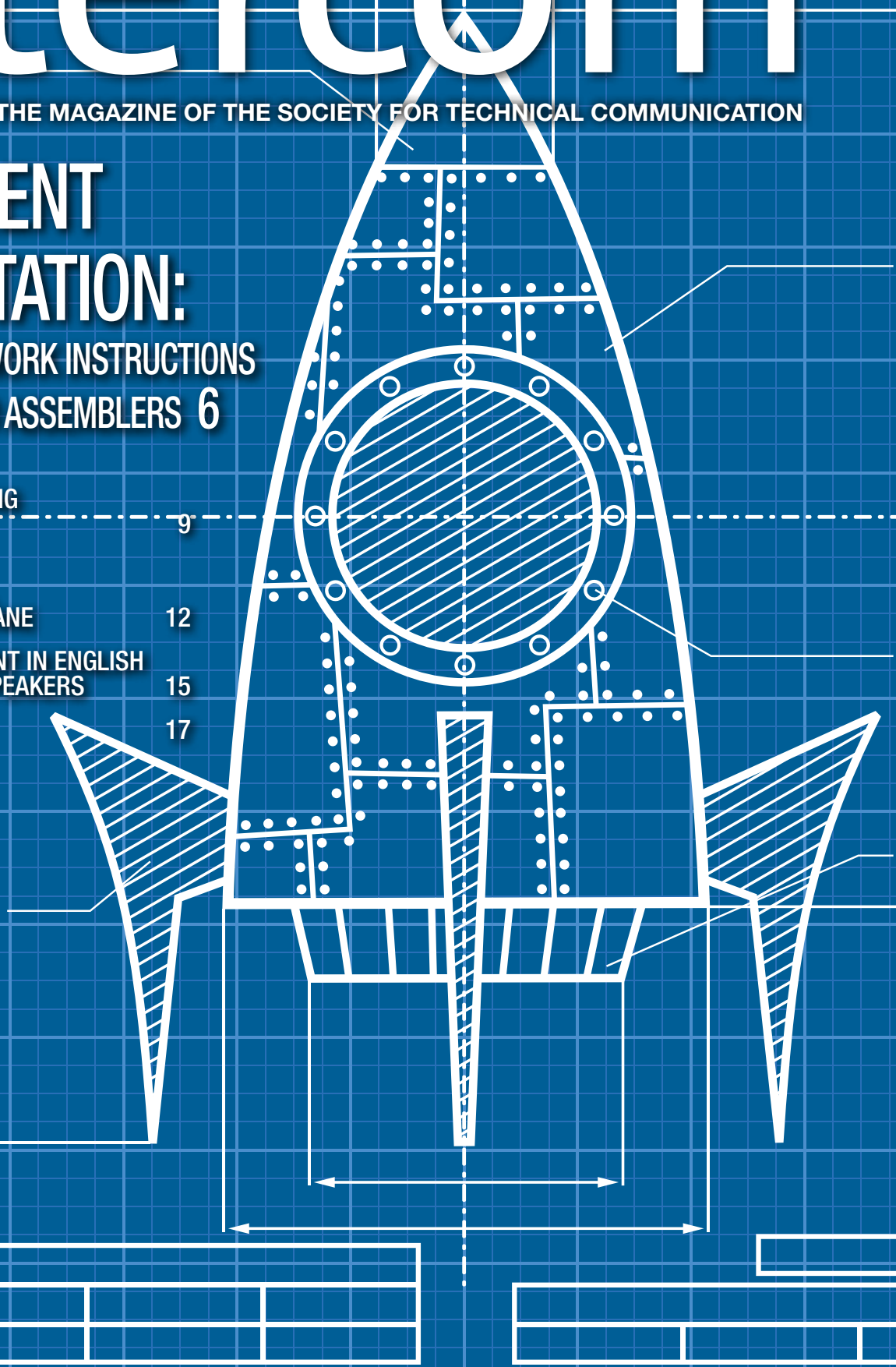
PRODUCE EFFECTIVE WORK INSTRUCTIONS FOR TECHNICIANS AND ASSEMBLERS 6

VALIDATE YOUR CONTENT: QUALITY ASSURANCE TESTING FOR DOCUMENTATION 9

WHY WE WRITE: TECH DOCS, MAINTENANCE, AND THE C-5 GALAXY AIRPLANE 12

WRITING TECHNICAL CONTENT IN ENGLISH FOR NONNATIVE ENGLISH SPEAKERS 15

MADCAP FLARE 12 REVIEW 17



Introducing

FLARE™ 12

Create Stunning Web and Print-Based Documentation Your Users Will Love

“One of my favorite new features simplifies creating responsive content. It allows users to select and design a responsive layout medium using the new user-friendly Responsive Layout Editor.”

Denise Kadilak | **Information Architect and Team Manager, Blackbaud**

MAJOR NEW FEATURES

- **Responsive Layout Editor**
  Create Responsive Content without Any Coding or Web Developer Resources
- **New Stylesheet Editor**
  Multiple Medium Views Such as Print, Mobile, Tablet or Any Customized View
- **Multilingual Publishing**
  Multilingual Web and Print Publishing from a Single Project
- **Preserve Tracked Changes**
  Tracked Changes Now Preserved in Word and PDF Output
- **Plus 64-Bit Support, Source Control Improvements, Snippet Enhancements and More!**

Learn More at MadCapSoftware.com/Flare12

Copyright © 2016, MadCap Software, Inc., and its licensors. All rights reserved. MadCap Software, the MadCap Software logo, and MadCap Flare are trademarks or registered trademarks of MadCap Software, Inc., in the United States and/or other countries. Other marks are the properties of their respective owners.

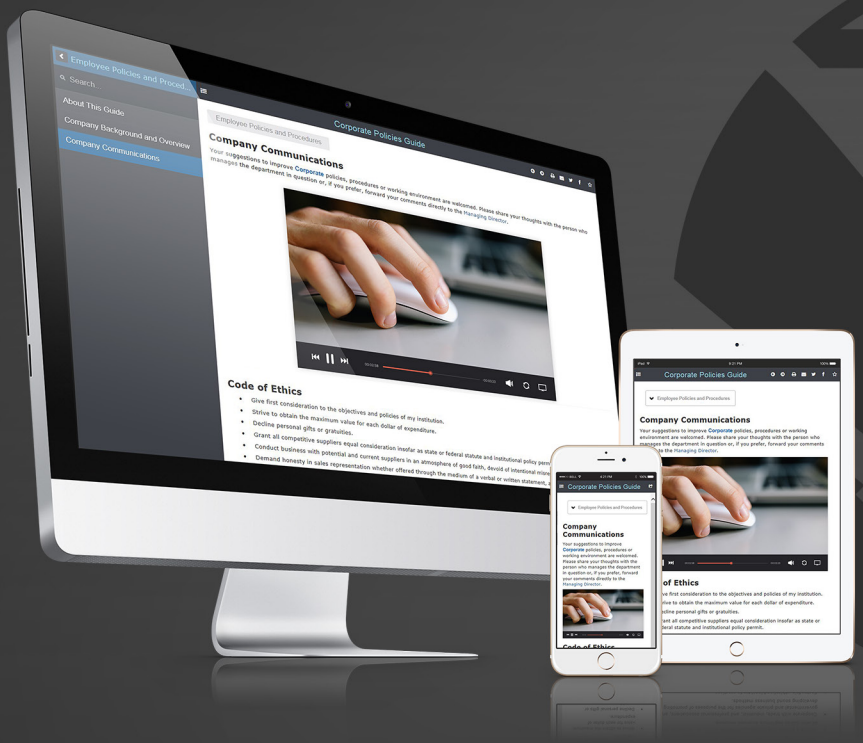
doc·to·help®
by madcap software

Using Microsoft® Word™ to Create Your Documentation?
Get the Most Out of Your Content with Doc-to-Help.

Easy Content Authoring & Re-use
Integrates directly into your Microsoft® Word™ interface.

Efficient Collaboration & Content Management
Choose from built-in technology, Microsoft® SharePoint®, or Microsoft® Team Foundation Server to work with teams.

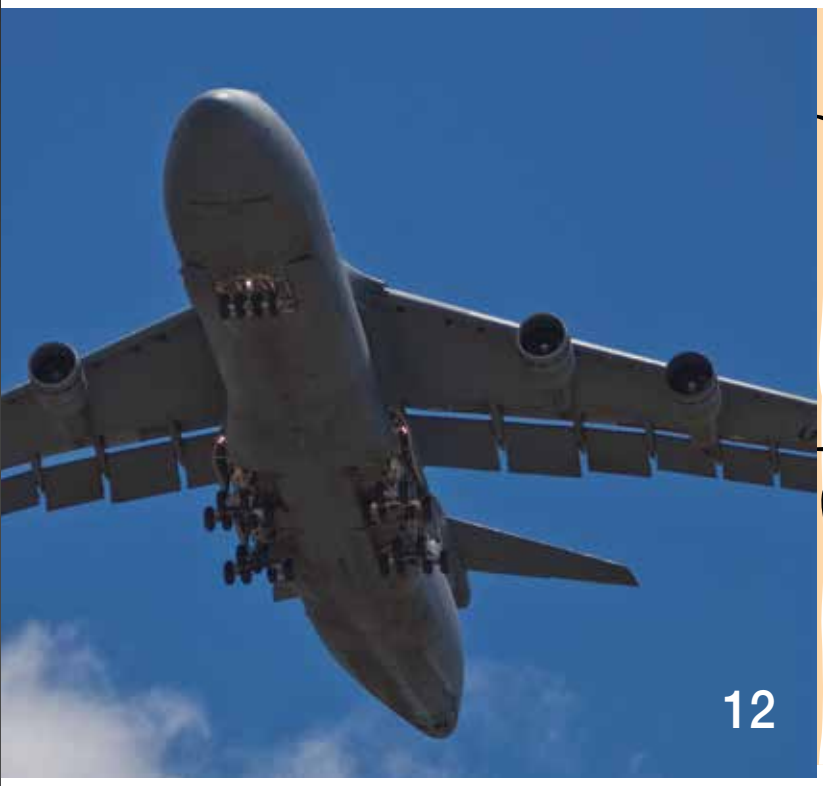
Powerful Multi-channel Publishing
Write once and publish to the Web, desktop Help formats, mobile devices, eBooks, and print.

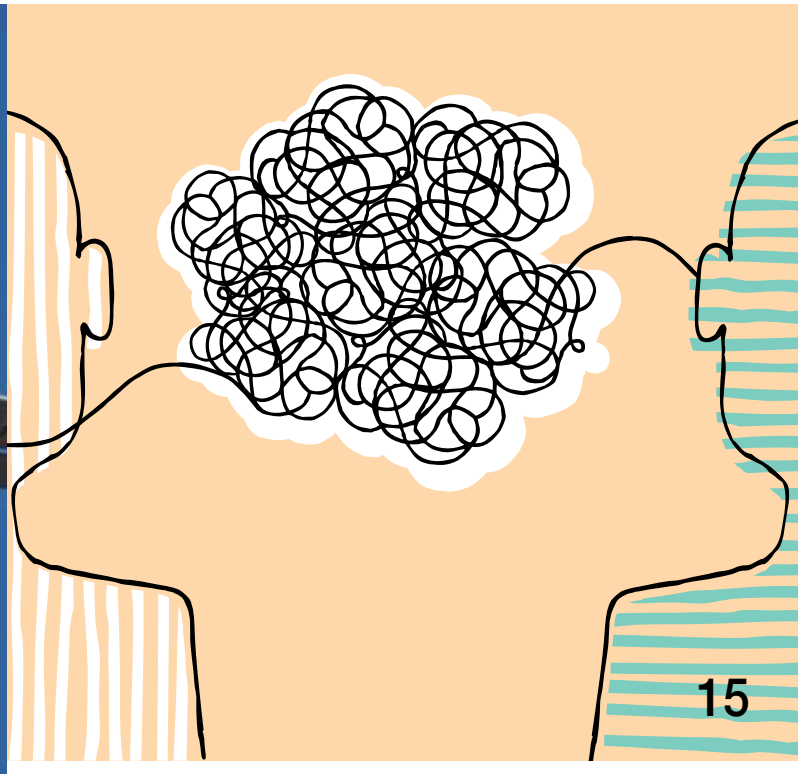


Download a Free Trial at **madcapsoftware.com**

madcap software

Copyright © 2016, MadCap Software, Inc., and its licensors. All rights reserved. MadCap Software, the MadCap Software logo, and Doc-to-Help are trademarks or registered trademarks of MadCap Software, Inc., in the United States and/or other countries. Other marks are the properties of their respective owners.





April 2016

Volume 63 | Issue 4

4 **From the Editor**

5 **From the Guest Editor**
By Richard Lippincott

FEATURES

GRAND HARDWARE DOCUMENTATION

6 **Transparent Documentation: Amalgamating Human Behavior Observations with Tech Writing 101 Principles to Produce Effective Work Instructions for Technicians and Assemblers**
By Lawrence "Lonnie" Brennan
The author tackles the problems associated with writing detailed and precise manufacturing instructions for large hardware systems.

9 **Validate Your Content: Quality Assurance Testing for Documentation**
By Emily Alfson
Aimed at hardware task validation, this article discusses how to ensure both safety and accuracy when checking procedures, tracking errors, and making corrections.

12 **Why We Write: Tech Docs, Maintenance, and the C-5 Galaxy Airplane**
By Richard Lippincott
Using a C-5 Galaxy airplane as an example, the author details how maintenance documentation is vital to the continued operation of aerospace systems.

INTERNATIONAL TECHNICAL COMMUNICATION

15 **Writing Technical Content in English for Nonnative English Speakers**
By Lisa Parys
The author provides five best practices for writing technical content in English with foreign, nonnative audiences in mind.

TOOLS OF THE TRADE

17 **MadCap Flare 12 Review**
By Paul Pehrson
MadCap Flare's annual update was released last month, with a variety of new features and enhancements. In this review, discover some interesting new features in Flare 12 including enhancements to the advanced

Adobe FrameMaker (2015 release)

Publish to mobile devices and multiple formats

Publish to PDF, Responsive HTML 5, CHM, Mobile Apps, ePUB, Kindle, AEM Mobile directly from FrameMaker without any plug-ins at no extra cost.

Visit our website to find out more:- http://www.adobe.com/products/framemaker.html

Adobe, the Adobe logo, and FrameMaker are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.
© 2016 Adobe Systems Incorporated. All rights reserved.

stylesheet editor, advanced ways to use conditions, and new functionality around cross references, to name a few.

SOCIETY PAGES

21 STC's Year in Review
By Chris Lyons and Bernard Aschwanden

22 Summit Virtual Track

22 Summit Preconference Schedule

23 Out and About in San Diego
By Alice Brzovic

24 Exploring Orange County's Downtowns
By Michael Opsteegh

COLUMNS

STANDARD DEVIATION
26 The Key to Adoption
By Ray Gallon

METRICS
28 The ROI Mindset
By Mark Lewis

DEPARTMENTS

FYI
31 Mark Your Calendar
Organization Events Across the Globe

WITFUL THINKING
32 That's No Moon
By Geoff Hart

ADVERTISERS

2, C3 Adobe
C2 Doc-to-Help
C4 MadCap Software
27 STC Certification

intercom

Intercom, the magazine of the Society for Technical Communication, is published to provide practical examples and applications of technical communication that will promote its readers' professional development.

Publisher Society for Technical Communication
Editor Elizabeth E. (Liz) Pohland
Assistant Editor James Cameron

CONTRIBUTING EDITORS
Scott Abel, *Meet the Change Agents*
Thomas Barker, *The Academic Conversation*
Nicky Bleiel, *The Essentials*
Kit Brown-Hoekstra and Cindy Currie, *Ask a Tech Comm Manager*
Jeanette Evans and Charles Dull, *Emerging Technologies*
Ray Gallon, *Standard Deviation*
Linda Roberts and Lisa Cook, *All Access*
Derek Ross, *Ethics*
Kirk St.Amant, *Student Perspectives*
Kirk St.Amant, *Working Locally, Communicating Globally*
Brian Still, *Trends in Usability*

EDITORIAL ADVISORY PANEL
Beth Agnew, Nicky Bleiel, Barrie Byron, Liz Herman (Chair), Alan Houser

STC BOARD OF DIRECTORS
Officers
Bernard Aschwanden, *President*
Adriane Hunt, *Vice President*
Kit Brown-Hoekstra, *Immediate Past President*
Jane Wilson, *Treasurer*
Alyssa Fox, *Secretary*
Directors Craig Baehr, Charles Fisher, Ray Gallon, Cindy Pao

SOCIETY FOR TECHNICAL COMMUNICATION
9401 Lee Highway, Suite 300
Fairfax, VA 22031-1803
+1(703) 522-4114 | +1(703) 522-2075 fax
Send questions and correspondence to the editor at the above address. General information about STC: stc@stc.org *or* www.stc.org.

Address Changes: membership@stc.org
Intercom Editorial: intercom@stc.org

Reprint Permissions: www.copyright.com
Intercom (ISSN 0164-6206) is published 10 times a year (monthly, except for August and December) by the Society for Technical Communication, 9401 Lee Highway, Suite 300, Fairfax, VA 22031-1803, a nonprofit educational organization, as a service to its membership. Membership in STC includes a subscription to **Intercom**. Periodicals postage paid at Fairfax, VA, and additional offices.
Postmaster Send address changes to **Intercom**, Attn: Membership, c/o Society for Technical Communication, 9401 Lee Highway, Suite 300, Fairfax, VA 22031-1803.

Copyright © 2016 by the Society for Technical Communication. All rights reserved. Printed in the USA. All articles in **Intercom** are copyrighted by the authors unless otherwise indicated. Anyone interested in reprints, reproductions, or reuse must contact the authors for permission.

To advertise in **Intercom**, contact Stacey O'Donnell at *stacey.odonnell@stc.org*, Society for Technical Communication, 9401 Lee Highway, Suite 300, Fairfax, VA 22031. Ph: +1(703) 522-4114; Fax: +1(703) 522-2075.

A Note from the Editor

April's *Intercom* theme is grand hardware documentation. It was a pleasure to work with guest editor Rick Lippincott on the topic. Rick is an STC Associate Fellow, a newly elected member of the STC Nominating Committee, and former president of the New England Chapter. He has been writing about grand hardware (or as he likes to call it, "heavy metal") for over 30 years in such fields as aerospace, ion implantation, high-energy X-ray, and telecommunications. He is currently working at Analogic Corporation in Peabody, MA. Rick has a BS in journalism from Ohio University and an MS in technical writing from RPI. He is the author of the Squadron/Signal book *C-5 Galaxy in Action*. He is often seen around the STC Summit snapping photos of everyone he can.

Rick has brought us three "heavy metal" articles concerning different aspects of writing documentation for "big things," like airplanes, which he details in his editorial.

Other articles in the issue include "Writing Technical Content in English for Nonnative English Speakers" by Lisa Parys and an in-depth review of MadCap Flare 12 by Paul Pehrson. This issue also introduces a new column on Metrics by Mark Lewis and a Standard Deviation column by Ray Gallon, and a Witful Thinking humor piece by Geoff Hart.

In the Society Pages, CEO Chris Lyons and President Bernard Aschwanden announce the publication of STC's 2015 *Year in Review*, and local chapter leaders have written about fun things to do in California while attending the Summit.

The STC Summit is fast approaching. I hope I will see you there.

—Liz Pohland
liz.pohland@stc.org

Heavy Metal

BY RICHARD LIPPINCOTT | *Guest Editor*

FOR THE PAST FEW DECADES, our profession has seen remarkable change driven by advances in technology. An enormous percentage of the work has been in the development, and thus the documentation, of software. As a result, it's sometimes easy to associate "technical communication" with "software documentation," and it's also easy to associate hardware documentation with components and systems associated with computing and networking.

However, large, grand hardware systems were the first subjects of technical documentation. The early 20th century saw the rise of systems such as steamships and railroads, devices requiring detailed instructions for operation, maintenance, and repair. The larger the system, the larger the stack of printed documentation associated with it. Urban legends say that modern aircraft can't even take off if they've got a full set of printed technical manuals on board (not true), or that a large modern ship would sit about a foot higher in the water if all the on-board paper documentation was removed (still under debate).

The presence of technology-associated hardware in our era has brought forth a perception that hardware is smaller, simpler, and less complex than software items that can easily be handled, picked up, and examined on a desktop. It's probably a fair statement regarding many technology-related components, but it overlooks very large, very complex systems such as aircraft, land transport, oil and gas refining, power turbines, and robotics. These grand hardware systems are truly heavy metal.

We often forget that in order to provide consistency in manufacturing, grand hardware systems require detailed and precise manufacturing instructions. This area of documentation is a little-known opportunity for technical communicators. For example, a modern medical DNA analysis system may be about the size of a commercial microwave oven, and comes with an operating manual that runs about 30 to 40 pages. The manufacturing instructions for the device, on the other hand, may run closer to eight hundred pages. In "Transparent Documentation," Lonnie Brennan tackles the problems associated with writing these procedures, in locations where your audience isn't some far away hypothetical user you never hear from but instead is an assembly worker in the same building and who knows how to find you if there's a mistake.

Ensuring both safety and accuracy is vital with systems where a hardware crash can result in a smoking hole in the ground. Emily Alfson addresses this issue in "Validate Your Content: Quality Assurance Testing for Documentation," and sets out a plan for checking procedures, tracking errors, and ensuring corrections get made. Although aimed at hardware task validation, the ideas are equally applicable to software.

As technical communicators, we may wonder about but never see our users, nor even know if the documentation is read. But in many cases, our work is absolutely critical to operate and to maintain complex hardware systems. My contribution to this issue, "Why We Write: Tech Docs, Maintenance, and the C-5 Galaxy Airplane," details how maintenance documentation is regarded as vital to the continued operation of aerospace systems, using as an example one of the largest aircraft in the world.

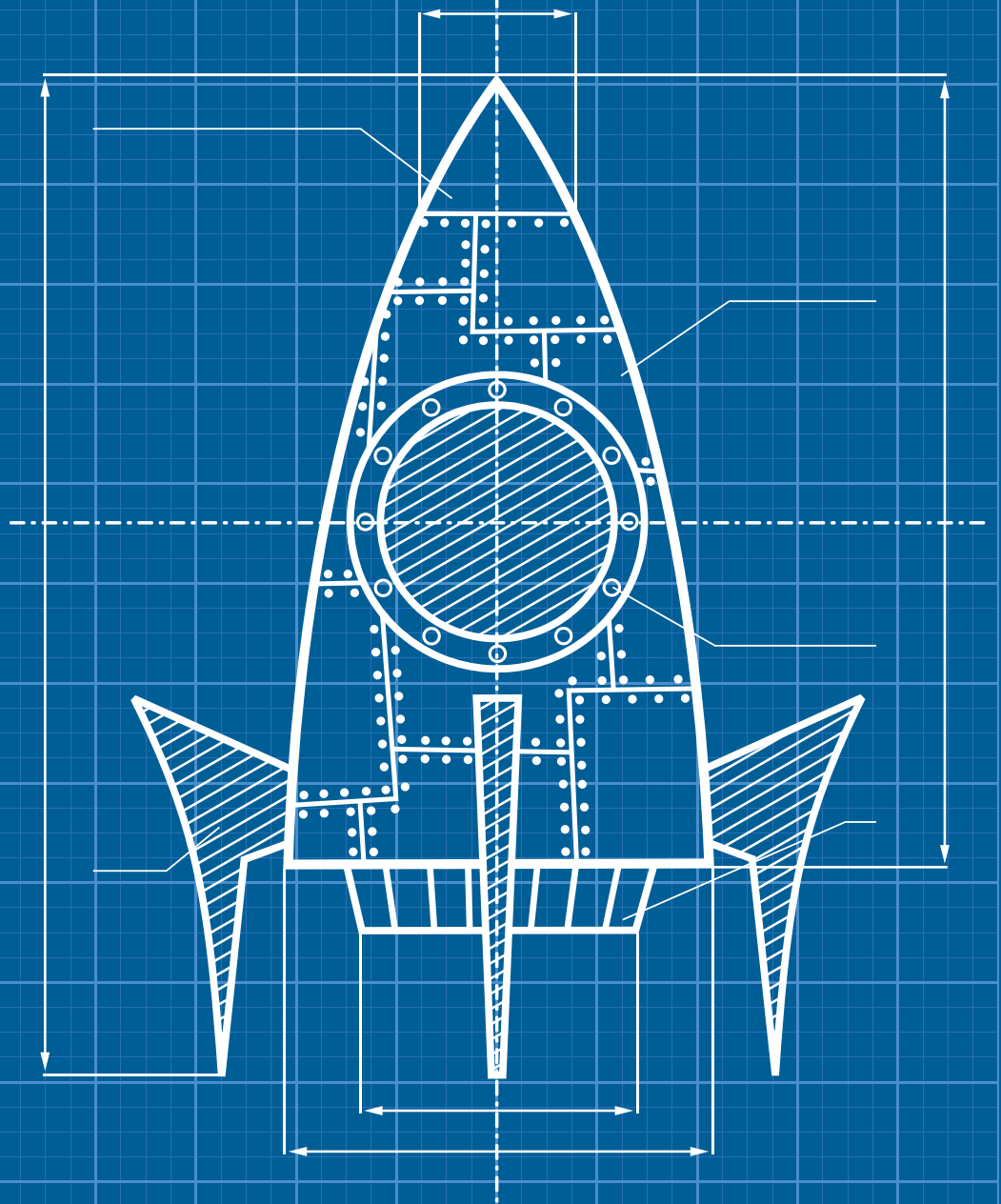
Finally, Goeff Hart wraps up with a lighter side in Witful Thinking, showing that sometimes really, really big hardware systems result in really, really big failures.

Times and technology may change, new software developments may mean easier interfaces and thus slimmer documentation, but invention also means continued development of grand hardware systems, and development of the documentation for it. When humans finally embark for Mars, operating and maintenance instructions will be on the spacecraft. Somewhere, right now, someone is even preparing documentation for flying cars and walking robots.

Heavy metal, indeed.

—Richard Lippincott
rjl6955@yahoo.com

Transparent Documentation:



shutterstock.com/Malchev

Amalgamating Human Behavior Observations with Tech Writing 101 Principles to Produce Effective Work Instructions for Technicians and Assemblers

By LAWRENCE "LONNIE" BRENNAN

YOU ENTER A BUILDING, walk through numerous doors, and never think about what the handles look like, which way to turn, how far to turn, how much pressure to apply—the door knobs and handles are in a way, invisible, transparent, irrelevant to your task at hand (get inside, move from room to room).

Your users, similarly, have a task to perform: a complex piece of equipment to assemble or test, and they are focused on the product and its components and connectivity. Giant sledge hammers, small eyeglass screwdrivers, torque wrenches, shims, brackets, and alignment tools are means to an end—get the product built accurately, consistently, in a rapid fashion, each and every time.

And what do we do? We cram details and verbiage into complex steps telling technicians and assemblers exactly how, when, and why to perform these steps. Why?

Why do we make users read? Why do we slow them down with peripheral information and distraction? Why do we assume they have no knowledge, no experience, and no context? Why do we produce documentation that has to be read, slogged through, understood, processed, followed, etc.?

A large portion of documentation exists because of poor designs or complex designs. If products were designed for manufacturability or ease of use, the integration of many parts would be as simple as square pegs in square holes, round pegs in round holes. With regret, a bracket can be mounted this way or that way, or flipped this way, or rotated that way. No color codes, indents, braille-like engravings are typically included in the design of a product. Documentation has to pick up the slack.

How can we make our documentation transparent? And what is transparent documentation?

Think in reverse: what is the least amount of information (text and graphics) that I can place on a screen or on paper that will convey the action required on the part of the user? Or, more simply, what can I do to approach invisible, transparent, or otherwise unobtrusive (lowest brainpower wattage drain) to guide a technician or assembler through the task at hand?

Transparency starts with thinking visually. More precisely, thinking about the task from the user's point of view in all that we do. Transparency also requires us to be prepared to create simplified documentation, with simplified language, with simplified steps. Every word must be weighed for its usefulness. Every line in a drawing and every pixel in a photograph (almost every pixel) needs to be scrutinized, and should remain on the screen or page only if it propels the user forward, seamlessly, as a seemingly transparent guide through the assembly process.

Yes, this is the zen of technical writing: getting within your user's mind, and feeding that mind only with what it needs, at a particular point in time, and convincing the user through graphics, layout, space, callouts, implied motions, and other methods that the documentation is easy to read.

Read that last sentence again. Note the simple use of the phrase "at a particular point in time." That's the secret to transparent documentation that we tend to ignore in Tech Writing 101: eliminating screen debris, instructional clutter, the weeds, the elements in our instructions which stop rapid progress, the words or visuals which shouldn't be there, right now, because the information isn't needed until a subsequent step, or not at all. If we spend more time weeding—eliminating excess information—our procedures will become lighter, friendlier, more transparent (more rapidly processed, seamlessly, with no slowdown in the express-reading lane of the user's mind).

Transparent Graphics: Using Your Mind's Eye

Can you put your mind's eye up above the ceiling and have it look down at yourself? Seriously, can you see the top of your head? Your arms extended out on your desk, on your keyboard, on this magazine? Can you visualize the color of the desk from that angle? The rings on your left hand? Can you move that camera rapidly to your left and see your side view? Can you move it behind you, see the back of your head, your arms on the keyboard, your screen before you? Can you shift it now, pretending that you're driving in your car down the highway, and move the camera all around your vehicle, always being able to rapidly view the angle of your car or truck or camel? Were you able to switch to riding a camel, and have that camera angle and visual come up quickly in your mind's eye?

If you can move your mind's camera, rapidly, and focus your mind on that which it would see, you are a visually gifted individual. If you've not done this, you too can achieve untold visual expertise with practice. Start slow, move that camera around. Don't get frustrated. Move into it. Run the movie in your head.

Why would you do this? Don't you hate it when you try to follow instructions but the graphics (artwork or photographs) are at the wrong angle from your point of assembly view? Or worse, when the orientation changes abruptly (shown from the left side when you were working on the right side, or shown from the back side, or across the table from where you sit, or flipped back and forth between this view and that view)? Each time the camera angle shifts abruptly, there's a time lag, a processing lag within one's mind that takes time (micro-seconds? seconds? a minute?) to figure out the orientation. During this processing lag, you've just gotten exposed: the user is now focused on the instructions, the visual, not the task. Your documentation is no longer transparent. It's a wall. It's slowing down progress. And once exposed, your documentation becomes an impediment to rapid process—the user must now actively process your documentation—they must think about it, slow down, consider it, pay attention to it, take time off the task to grope with it. Sounds counter-intuitive, huh?

Hiding from the mind's acknowledgement that it must actively burn brain cells at high wattage to understand, interpret, and otherwise process your instructions is not easy at first, but it can be fun. Solutions are simple to find, and it starts with applying some of the basics you either

were not exposed to in Tech Writing 101, or simply didn't take away as strongly as you might have.

Let's start with camera angles (graphics, illustrations): angles need to be chosen with extreme care and from the perspective of best, most consistent and natural use by the assembler or technician. We need to construct our graphics or take our photographs from the user's perspective—from the user's eyes. (And, yes, that might mean getting personal over someone's shoulder, repeatedly. But that's just part of the solution, deciding what to show and how to show it, ah, the fun is just beginning.)

Nothing turns off the user faster than having to struggle through a wall of words, or to read lines and lines of instructions. If you can use a photograph instead of a paragraph, do it. If you can grey-out most of a photograph and showcase/highlight just the items of interest, do it (de-couple the items being handled by the user from the previously installed items). If you can use a 3-D line drawing instead of a photograph, do it. If you can use a 2-D line drawing instead of a 3-D construct, consider doing it. Push to simplify the graphic to draw your user's attention to the items of interest.

With this exercise, I am reminded of an art class in which one student depicted a female model through a highly-detailed line drawing of her eyes, using perhaps hundreds of fine lines in this area, then used just four or five lines to depict the remainder of the model's entire body. The four or five lines confirmed gender and shape, while the fine detail of the eyes focused the viewer's attention to the area of interest by the artist. (The teacher responded positively when the student explained, "I wanted to focus the viewer's attention in one area. Did this not do that?")

Side-clutter, irrelevant detail, graphic debris as we call it, might look nice, but if it detracts and causes even a momentary pause, a delay, a need on the part of the assembler to pause and interpret or otherwise process the item, you've failed: your document stopped the assemblers' progress, made them slow down or stop. You're no longer transparent. And on some level, now that you're exposed for being an impediment to progress, it will be difficult if not impossible to resume your role as a transparent helper/guide/usher through the difficulties of a complex task.

Transparent Language

Are you up to the task of putting your mind's eye into that of your user? If so, you'll never look at another graphic, anywhere—on a subway wall, in a magazine, in a restaurant's menu—in the way you did yesterday. Now it's time to get back to the basics of technical writing 101, with a twist: make your language transparent.

Transparent language? Are you nuts? Well, not exactly transparent, we'll use ink or pixels, but the goal is to make the language so simple, with the least amount of ink or pixels, that the meaning will transmit seamlessly to the instruction user, with no delays, no application of the brake pedal.

So we start with eliminating the wall of words, the basic "chunking" of steps down into sub-steps, etc. We've all done it. Often we find this "chunking" step to be the first step we must perform, repeatedly, on documentation provided by engineers. Those intelligent, thoughtful, detailed souls were forced to take one or two technical writing classes in engineering school. With confidence, they'll happily pontificate endlessly on the need for a line, a bullet, a tense, a comma, or semicolon. Like the end user cares?

Let's cut through this rabble quickly: put down the pens, take your hands off the keyboard, put down the pocket knives. Pick up the chainsaw. It's time to cut down this forest.

Write Less, Say More

The best way to clean out is to throw out: if a word is not needed, don't include it. Keep going back over your instructions. Omit needless words. And please use simplified language, or for the English language writers, use simplified English.

You've perhaps heard about the use of "simplified" English. The concept has been around for decades and some companies swear by it. It's not so much that you write to a given audience's comprehension level (small words, simplified noun/verb constructs), but rather that you use repetitive phrases consistently. Further, every word that you use in your instructions can only be used in only one manner. For example, use "bolt" as a noun only, and never as a verb "bolt x to y." It's either going to be used as a noun or a verb, but never both in the same documentation set. Keep it simple.

The best way to say goodbye to words is to use graphics, arrows, numbers, or pictures showing the action—application of grease or tightening a bolt clockwise—or otherwise replacing words with simplified graphics.

What's the downside to transparent documentation? You'll get laid off. Why? Everyone will look at the documentation, see that the instructions are simple, the task is easy to perform, both experienced and novice users have validated the task, and it's just so usable. They'll think: this is so easy to do, I wonder if we even need to have technical writers. It's simple.

This may be a fair comment from the unenlightened, unappreciative minds of some in management; just be ready to supply some "before" examples to show what the instructions looked like in their first draft, and if that first draft came from a wall-of-words, excruciatingly detailed engineer's draft, you'll see your management reviewer respond (with head bobbing up and down), "Oh, you got this from this, hmm, I see."

Go forth, become transparent.

LAWRENCE "LONNIE" BRENNAN *was president of the STC Boston Chapter (now STC New England) from 1997–1998. He is a senior technical writer at Analogic, in Peabody, MA, where he prepares user documentation and manufacturing instructions for the company's high-energy inspection and medical systems.*

Validate Your Content:

shutterstock.com/nalinn

Quality Assurance Testing for Documentation

By EMILY ALFSON | *Senior Member*

QUALITY ASSURANCE TESTING of documentation validates that the product documentation is accurate and usable. It ensures that the information published with a product is accurate, relevant, and will not cause harm or injury. Just as a product is tested for safety, accuracy, and usability, documentation should be subjected to the same rigorous testing methods to ensure accurate and usable information is provided to users.

Successfully implementing a process for documentation quality assurance testing can be accomplished by designing a process that meets the needs of your products and organization, and ensuring adoption through integration into your product development lifecycle.

Components of Quality Assurance Testing for Documentation

Creating a quality assurance testing process for documentation requires four key components. These four components will create the basis for your testing and can be adapted to fit the needs of your organization.

The four components are:

1. Professional and dedicated quality assurance analysts
2. Defined testing method
3. Defect classification system
4. Feedback and error-correction loop

Professional and dedicated quality assurance analysts

The most effective tester is a dedicated, trained quality assurance analyst. This role requires a skill set that balances technical know-how with outstanding communication skills. This is not a task to assign to anyone on the team; it requires a professional trained in quality assurance testing methodology. The quality analyst must understand the product they are testing, how the product is used in the real world, and the audience for whom the product and documentation is intended.

Testing should be the primary focus of the quality analyst. A team member dedicated exclusively to testing best fills this role.

In small companies or teams, having a dedicated quality analyst may not be feasible. In the absence of a dedicated quality analyst for documentation, there are alternative methods that can be used to perform quality assurance testing:

- **Borrow a quality analyst from another team.** Ideally the tester would not have been involved in the product or documentation development so they have an unbiased approach to testing.
- **Utilize an internal resource** with a role similar to the intended audience of the documentation. For example, you might use an internal developer from another product development team to test your API documentation.
- **Peer review among the writers**. While this method is better than no testing, it can be difficult for writers to review and test documentation without bias. Just as a subject matter expert may be so focused on their area of expertise that they may not see the big picture, a technical writer may have a similar struggle when testing a peer's document.

Defined testing method

The testing method can vary depending on the product and testing requirements. Determine which method will most effectively validate the documentation. The method may be different depending on the product or type of documentation being tested.

Demonstration

The most effective method of validating the documentation is to use it to perform the procedures described in the documentation. The tester should perform the steps exactly as they are written in documentation. This is the most effective method of testing.

Simulation

In some cases, performing the actual steps or procedures described in the documentation may not be possible. For example, testing procedures on hardware that is in production may not be possible without causing major disruption or putting equipment at risk. In this case, validation by simulation requires the tester to review the procedure while examining the equipment in-place to determine any possible errors, issues, or concerns. The tester observes the equipment in its operational configuration while studying the task to ensure that it is logical, effectively descriptive, and can be accomplished as written.

Comparison/Engineering Review

In some cases, comparing the documentation to the original source data can be used to test the accuracy of the documentation. In cases where the documentation includes a large amount of descriptive and tabular data, tolerances, measurements, and specific data elements, comparing the documentation to the engineering or source data will validate the accuracy of the technical specifications in the documentation.

Defect Classification

A system of ranking defects is a good way to ensure the test results are recorded in a meaningful and actionable way. The quality of the information returned to the author is vital to ensure resolution of any defects. A defect classification system will ensure consistency in reporting and resolution of defects.

This is an example of a five-tier classification system that could be applicable to hardware or software documentation.

1. **Critical—**Generally reserved for errors that would cause injury or death.
2. **Severe—**An error that would result in damage to the system, but would not harm personnel.

Just as a product is tested for safety, accuracy, and usability, documentation should be subjected to the same rigorous testing….

3. **Major**—The error has impaired the user's ability to perform the task being described. No damage is caused to the system, but the user was unable to complete the task using the information at hand.
4. **Minor**—The procedure is wrong, but there is sufficient data for the user to continue. This category can also include spelling, punctuation, and grammar errors if they don't change the meaning of the steps.
5. **Improvement**—The procedure is actually correct as written, but the tester recommends clarifying the information.

Feedback and Error Correction

Test results are of little use if authors do not receive clear, actionable feedback. The quality assurance analyst must create a report of defects in the documentation, including the specific location of the text or image in question (page number, section number, or a screenshot of an interface) and information on how to resolve the defect. The final report should provide detailed and specific corrective data to the writers.

Feedback methods include:

1. Entry in a bug-tracking system
2. PDF file with comments and mark-ups
3. Email with the test results
4. Printed copies of the documentation with markup
5. Wiki-based entries or other collaborative writing methods

The actual method could vary from company to company, based on what works best in each situation. Smaller organizations might function well with an informal feedback method. Larger organizations may require the use of sophisticated defect tracking tools that capture traceability of bugs and resolutions. Detailed reports and records may be required for certifications such as ISO 9001.

Quality Assurance Test Steps

The steps to test the documentation are similar regardless of the subject matter. The following process could be adapted to work for software or hardware documentation testing.

1. **Develop the quality assurance strategy.** Define the goal of the quality assurance testing before any testing begins. Ensure all stakeholders have been educated on the quality assurance process and agree to adhere to it. Getting buy-in from stakeholders will help to ensure that quality assurance testing of the documentation is integrated into the product development cycle.
2. **Create a test plan.** Before the documentation can be tested, a test plan must be constructed to ensure that the testing method and execution will result in validation of the documentation or product. Using a test plan brings consistency to the process, ensuring that the test is repeatable and the results are actionable.
3. **Test the documentation.** After stakeholders have approved the test plan, the quality analyst executes the test. The quality analyst will test the documentation, performing the tasks described in the documentation exactly as they are written. Testing can take place over hour or days, depending on the type of test being performed. Testing can be performed in a testing lab, on a dedicated computer, in the field, or wherever the documentation will likely be used in a real-world situation.
4. **Report the results.** The output of the quality assurance test is a detailed report of the results. Throughout testing, the analyst will take careful note of any differences between the documentation and the actual hardware or software, any errors in the steps or procedures, error codes, screen-shots of software interface bugs, and any issues with the usability of the documentation. In addition to noting any errors, the report should also include information on how to resolve them. The report is submitted to the author for resolution of defects.
5. **Rework the documentation.** In this step, the technical writer will process the quality assurance report and make any necessary corrections to the documentation. As the defects are resolved, the writer should include notes for each defect explaining how it was resolved or why it was not resolved. Using whatever defect tracking system is in place at the company, this method provides traceability between any failures in the quality assurance test and the resolution in the documentation.
6. **Request approval.** In most cases, the quality analyst will review the writer's response to each defect and verify that the defect was resolved. If the quality analyst is satisfied with the corrections, they will issue approval of the documentation, certifying it as tested and validated through the approved quality assurance process.

A quality assurance testing process for documentation will ensure accurate information is published in product documentation. Just as products go through extensive testing before being released, applying the same principles to documentation will ensure that accurate information is being published, and will improve overall quality and customer satisfaction.

EMILY ALFSON *is an STC Senior Member, a former president of STC New England, and currently serving on the Community Affairs Committee as the Leadership Day lead. She is the manager of the Boston-area InterChange conference for technical communication professionals. Emily is the technical writer and knowledge manager at MOTOR Information Systems in Troy, Michigan.*

Why We Write: Tech Docs, Maintenance, AND THE C-5 Galaxy Airplane

By RICHARD LIPPINCOTT | *Associate Fellow*

shutterstock.com/Anatoliy Lukich

THE LOCKHEED MARTIN C-5 "GALAXY" transport airplane is one of the largest airplanes in the world, and is the largest in the U.S. Air Force inventory. Just shy of 248 feet long, it has an interior cargo deck 121 feet long, one foot more than the generally accepted distance for the Wright Brother's first flight. The first of 81 C-5As rolled out in 1968, and after a dozen-year break in production, the first of 50 additional airplanes (designated C-5Bs) rolled out in 1985. Just over 50 of the airplanes remain in service today; they are all currently being upgraded with brand new avionics, engines, and instrumentation and are expected to continue flying for decades.

The mission of the airplane is to haul cargo (and to a lesser extent, people) globally as needed. This may be in support of U.S. or NATO military operations, but more often than not the airplanes fly routine logistical transport missions in support of the USAF and various government agencies. Two of the airplanes have been modified for special use transporting mission equipment for NASA. The C-5 fleet frequently flies humanitarian and disaster relief missions, whenever and wherever needed. Cargo loads are frequently in the range of 325,000 pounds or more, and the newest version of the airplane holds a world record for heavy flight with a gross weight over one million pounds.

None of this would be possible without a complete and thorough set of documentation used to operate, maintain, and repair the airplanes. An urban myth says that for airplanes like the C-5 or the commercial Boeing 747, the full set of printed manuals weighs more than the airplane. Not true, but for a C-5, the full set of printed documentation would fill 50 to 60 feet of shelf space.

Documentation subject matter starts with the flight manual (TO 1C-5A-1, commonly called the "Dash One") and includes operation of all airplane systems, preventive maintenance, inspection, and repair. Inspections range from simple eyeballing to X-ray, ultrasonic, or magnetic particle methods of assuring the airframe remains within operation and safety limits. The documentation for exterior paint and markings alone runs to several hundred pages.

The content of the manuals is considered so critically important that they are designated Technical Orders, or TOs, meaning literally: the instructions within should be considered as orders, not suggestions, and must be carried out as written. With some new aircraft designs, the technical documentation delivery is considered important enough that the customer takes delivery of the manuscripts first (to begin training and familiarization), then 90 days later takes delivery of the airplane. In cases like that, a missed publication deadline can end up costing the airplane manufacturer millions of dollars.

In aviation, the consequences of documentation errors can be tragic. The May 1979 crash of American Airlines Flight 191 was traced to maintenance errors caused in part by problems in the service manual. The 2001 crash of American Airlines Flight 587 was traced, in part, to a deficiency in the flight manual.

Maintenance crewman Daniel Williams pointed out that sticking to the documented procedure is a protection in case problems come up later. He said that his instructors, "beat it into my head that the TO has a purpose, and that if something goes wrong and you were using the TO the answer given for the investigation should include the TO section, paragraph, and step with the statement while the aircraft is being repaired and the TO should also be changed."

For decades, aircraft operation and maintenance manuals were distributed on paper. Updates were frequent enough that it drove a requirement for "change page" packages, partial publications of only the affected pages which would be inserted into the printed manuals. Printed updates were phased out starting near the end of the 20th century. Now the TOs are distributed electronically (typically as PDF), and updates come in the form of complete revisions. It's faster, cheaper, and easier than the printed documentation. It's also easier to ensure that a complete set of the TOs is kept with the airplane at all times.

The airplane maintenance manuals are organized on a three-tier system, often with separate documents for each level. From the simplest level to most complex, these are:

- **Field/Organization**—Tasks that can be completed with basic tools. Typical tasks at this level would be trouble-shooting problems, and then removing and replacing a faulty component. Also included are replacement/replenishment of fluids or other system consumables. Simple mechanical or structural repairs are also permitted. Engines can be disassembled into major sections, for replacement.
- **Intermediate**—Rework and repair of faulty components, including recalibration of systems. Electronic systems can be repaired to the level of board replacement. Engine modules can be disassembled and repaired.
- **Depot**—Rework of electronics boards, major structural repair, major rework of structural systems, and machine rework/grinding of engine components.

Documentation in these categories ranges in detail and density based on the task at hand. Complex depot-level tasks may consist mainly of tolerances for grinding or other machine work, references to engineering drawings, or other forms where it is assumed the users have a high degree of skill and are mostly in need of specific data and measurements. Very simple and routine tasks may come in the form of a "job guide," a pocket-sized document that spreads a procedure out over several pages, with simple steps on the left page and corresponding illustrations on the right. Another type of specialized documentation is the Time Compliance Technical Order, or TCTO. These are one-time use manuals that may mandate special inspections of the aircraft, or may come with a box of parts as part of a system upgrade.

Maintenance crews can perform field-level repairs while the airplane is away from the home base. Interme-

diate-level repairs are typically performed at the home base or another Air Force Base. Depot level work on the C-5 airframe is normally only done either at the Warner Robins Air Logistics Complex in Warner Robins, GA, or the Lockheed Martin facility in Marietta, GA.

Former C-5 maintainer Rich Jones recalls technical data helping during a mission. "We landed at Hickam AFB and the crew said they had a bogie pitch light.… We troubleshot the problem to a bad bogie pitch sensor and put it on order, which took 3 days for the part to come in. After removing and replacing the bad sensor, technical data said an alternate method for operational check did not require a jack and swinging of the gear. The flight crew and engineers balked at this at first, as they were clamoring for a jack. However, we had the TO to back us up and we showed them in the book in black and white that it did not require a jack to op's check. We replaced the part and checked the bogie pitch sensor using the alternate method, I.A.W. technical data, and signed it off. Good to go. The good thing is, we had the technical data to back us up. Mission continued without problem."

Quality assurance of the procedures is a critical requirement, stating that no procedure can be added to the Technical Orders unless it has undergone a complex process known as "validation/verification." It is a two-level review, conducted first by the organization responsible for writing the documentation (in the case of the C-5, a tech writing QA team at Lockheed Martin) and then verified by repeat performance by USAF personnel. For more details on processes like this, see Emily Alfson's article elsewhere in this issue.

After validation/verification, the documentation undergoes a thorough edit. The edit requirements cover more than just style, format, grammar, and spelling. Editors check to ensure that the documentation meets requirements for inclusion of safety admonitions, that illustrations are properly referenced, and also that all of the validation/verification comments have been incorporated.

Maintenance tasks on the airplane include those that are scheduled (lubricant replacement, adjustment of flight control components that come out of adjustment in the course of normal use, tire changes, system software upgrades) and unscheduled (repairs of components that fail). The scheduled tasks come at known intervals of either the calendar or airplane usage, the unscheduled are of course surprises caused by component failures. Troubleshooting to identify the cause of those failures

For unscheduled maintenance, the process usually starts either when the flight crew finds a problem (for example, the landing gear won't retract, or worse, it won't extend), or is notified of a problem by an onboard automatic diagnostic system with the awkward name "Malfunction Detection, Analysis, and Recording." It is more commonly called MADAR (rhyming with "radar"). MADAR runs at the airplane's flight engineer station, and provides a troubleshooting path to isolate the system failure. The system also provides fault codes that the crew can forward to the home base, this allows maintenance crews on the ground to start preparing for the repairs even before the airplane is on the ground. If this isn't enough to pin down the problem to specifics, there is an additional set of fault isolation manuals that walk users through a decision tree, starting with symptoms of the problem and having multiple endings with solutions for each.

Once a problem is identified, the task is either performed or designated to be fixed at a higher level of maintenance. In either case, the work is done with the documentation nearby at all times.

Aircraft maintenance crewman Sean Sullivan put it this way: "TOs are there for a reason. Someone said you can't remember everything and he's exactly right.… These TOs are there for the safety of the aircraft, of course, but they are also there for the safety of all the personnel working on that aircraft."

The Air Force encourages feedback to the writers, using an established process and forms. When crew members find errors, or simply know a better way to perform a procedure, they can submit a standard form (known as the "AFTO 22") detailing the suggested changes. If approved, the form makes its way back to the technical writers maintaining the airplane manuals, and incorporated into an update. Technical communicators often never know if the documentation is being read or, if it is, how usable it is. The AFTO-22 process provides direct feedback from the users to the writers, and a peek into the mind of the user.

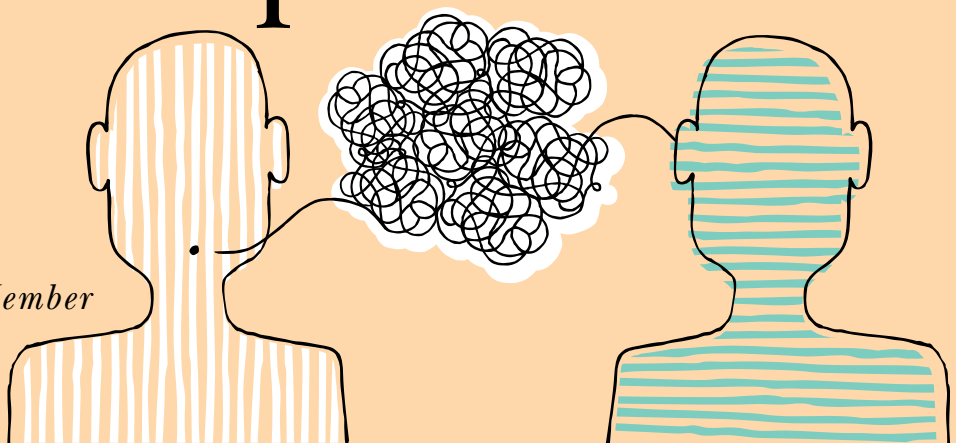
This is not to say the technical orders are perfect, no document is. Retired aircraft maintainer Tim Bowers recalls, "The R2 procedure for the system hydraulic pressure transducer is 'Removal and replacement of the hydraulic system pressure transducer is obvious.' Twenty five years later and I still laugh at that one."

Technical communicators take pride in their work, but often are in a position of not knowing if the documentation is useful, if it meets the needs of the users, or for that matter if the users even read it. Writers on aerospace systems are fortunate in that they frequently hear first-hand about the use and the accuracy of the documentation. When disaster strikes anywhere in the world, it's common to see those giant airplanes landing with food, water, medical supplies, and other materials desperately needed to help the survivors.

This is why we write: for the users, of course, but also for those whose desperate needs may be met only because an airplane is fully operational, reliable, and ready to go anywhere in the world when needed.

RICK LIPPINCOTT *is an STC Associate Fellow, a newly elected member of the STC Nominating Committee, and former president of the New England Chapter. He has been writing about grand hardware (or, as he likes to call it, "heavy metal") for over 30 years in such fields as aerospace, ion implantation, high-energy X-ray, and telecommunications.*

Writing Technical Content in English for Nonnative English Speakers



shutterstock.com/Diego Schtutman

By LISA PARYS | *Student Member*

ALTHOUGH TECHNICAL WRITING may have been around since ancient Babylon, according to an article in *Technical Communication* by Kathy Pringle and Sean Daniel Williams, one thing that hasn't changed is the continuing need for good content and well-designed interfaces. Many people have failed to fully consider how far-reaching websites and social media are for businesses. For example, Barilla, an Italian pasta company, has now become a household name in the United States. They also have a great online presence at *www.barilla.com*.

Similarly, American companies are making inroads into foreign countries in ways that are not always intentional. The Internet remains a primary platform. It is in this context that people in other countries become unseen users who are not always considered in our design. We often think that just because we use a .com URL and address our audience in English that people from other countries will not be viewing our content. This, however, is not necessarily true.

We can't assume that nonnative English-speaking users only read our content when we write it in their native language. While offering translations might seem like the ideal, it is not often feasible. For example, what happens when your organization has a limited budget? The most realistic solution is to design your content so that it is easy to interpret; that is what creating good content is really all about.

The Interpals website is a primary example of how this can be done effectively. The site is viewed by people from all over the world, most of them looking for pen pals. The designers of this site are obviously aware of their international audience, yet they still design their interfaces—the design that allows people to interact with the site—in English. We can and should learn some best practices that we can for those times when designing and writing content in multiple languages is not an option. Here are a just a few of them to provide a quick overview.

Writing in English: Best Practices

How can we write our documentation in such a way that those with limited English proficiency will understand our message and feel comfortable with our content? In truth, it may not be much different that the way documents are often edited so that they are easier to translate into foreign languages. Ann H. Adams, Gail W. Austin, and Melissa Taylor wrote in 1999 about IBM's efforts to make their documents more translatable. The following is a summary of some of their suggestions, as well as those of other articles, along with my reasons for why this makes good content creation sense overall.

Avoid words with more than one meaning.

Avoiding words with more than one meaning can make it easier for nonnative English speakers to understand your intended meaning. This is particularly true if you will draw from one meaning in one instance and another in a second or third instance. Consider the word, "organic." A search of the word on the website dictionary.com contained at least three different potential meanings. One is a type of food while another means "pertaining to living organs." So which meaning does the writer intend?

Native English speakers may discover which one is intended more easily than nonnative speakers; they simply

look at the context. However, it might be difficult for nonnative speakers to ascertain this. Therefore it is good practice to avoid using the word in multiple meanings or at least link its usage to a glossary of possible meanings and point to which meaning is intended in which instance.

Don't talk down to nonnative English speakers.

Jean Weber wrote, "Some people whose first language is not English learned English at a very early age, so are quite bilingual." Like many audiences, a nonnative English speaking audience, particularly an educated one, will more than likely pick up on the fact that you are talking down to them and feel they are being treated condescendingly. This is perhaps one of the worst feelings audiences can pick up from technical communicators.

We want our audience members to come away from our content having obtained the knowledge they needed and wanted to get from it in the first place, but not in a way that makes them feel as though we think that they are not intelligent. The fact that more countries are teaching their students English should make us even more considerate in how we write and design our content, not less.

Avoid humor.

As Adams, Austin, and Taylor have pointed out, humor doesn't translate well, not just from one language to another but also from one culture to another (1999). Humor also probably wouldn't go over well in cases where the audience has little knowledge of where it is coming from. The lack of translatability doesn't mean that our audience lacks knowledge, just the context. We must not assume they will understand culture-specific metaphors.

It also doesn't mean that they can't be translated into another language, but they don't mean the same thing when taken outside of their cultural and linguistic context. In fact, what is humorous in one language may be quite offensive in another and is usually "cultural-specific" (Adams et al., 1999). So even in a relatively benign scenario, users may not understand what the writer is trying to convey.

Don't use idioms.

Idiomatic expressions also vary from country to country. For example, imagine a conversation with a newly arrived foreigner where the American speaker says, "Tell me about it." This expression might confuse the new arrival when she has just finished telling her story to the American. "What else does he want to know?" she might wonder.

Even moving from one region to another in the same country might expose a new arrival to expressions that he or she has never heard of. For example, in North Carolina there are many expressions that are not commonly heard in places such as California or the Northeast and vice versa. Although the United States is an exceptionally large country, it is likely that regional differences of idiomatic expressions exist in other countries as well.

Consider the use of videos and visuals.

In a 2007 article, George Hayhoe describes a time when he visited one of his students who was working for a fast food company for her internship. He was surprised to find that what she was working on was actually a wordless video instructing workers with limited English proficiency in the company's preferred procedure for making lemonade. Hayhoe wondered whether there would be a future for writing if this trend continues and concluded that there would be. After all, someone would have to script the actions of the talent.

Videos can also work for other platforms as well, especially when demonstrating something for audiences. And in some situations such as on airplanes, they are necessary. In situations where we elect to use words, we should make sure that any speech or sound on the video is understandable by second language learners.

Visuals can also help in reinforcing the information that companies try to convey to customers. While it may not be possible to consider every possible culture and its norms (rules that a society uses to guide the behavior of its members) when designing visuals, it is possible to make our images as universally appealing as possible.

Conclusion

Designing our English language documents with foreign audiences in mind is not just good for business; it's also good for our employer's reputation abroad. This goes back to the fundamental rule that most of us learned in our first technical writing class or on our first assignment—consider your audience. That's what we aim for as we create content.

These principles apply not just to those documents which companies mark for translation into other languages but also for those that will remain in English. We must create our English content with a worldwide audience in mind. Whether we imagine it or not, we are reaching the world.

LISA PARYS (lparys3@gmail.com) *currently lives in New Bern, NC, and is studying for a master's certificate at East Carolina University in Greenville, NC. Looking to transition into the technical communication field, Lisa is primarily focusing on intercultural and scientific communication.*

REFERENCES

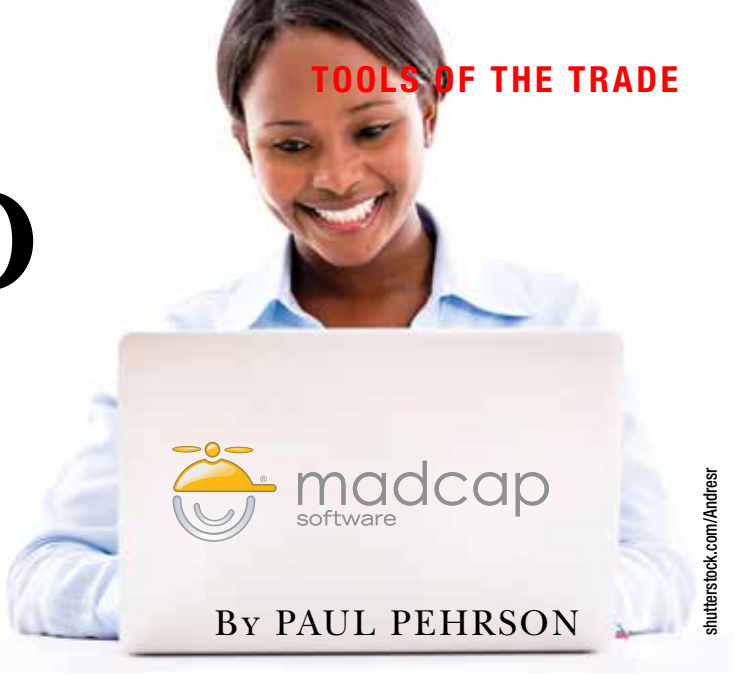
Adams, Anne, Gail Austin, & Melissa Taylor. Developing a Resource for Multinational Writing at Xerox Corporation. *Technical Communication* 46.2 (1999): 249–254.

Hayhoe, George. The Future of Technical Writing and Editing. *Technical Communication* 54.3 (2007): 281–282.

Pringle, Kathy, and Sean Daniel Williams. The Future Is the Past: Has Technical Communication Arrived as a Profession? *Technical Communication*, 52.3 (2005): 361–369.

Weber, Jean. Editing for an International Audience. *Technical Editors' Eyrie*, 2002, *www.jeanweber.com/newsite/?page_id=56.*

MadCap Flare 12 Review



shutterstock.com/Andresr

By PAUL PEHRSON

IT'S THAT TIME of year again, and just in time for MadWorld Conference, MadCap Software has released the latest version of its authoring platform, MadCap Flare 12. As a MadCap user for almost 10 years, I've had a chance to see firsthand how Flare has developed over the years, and this is a release that I'm excited about.

You can go read the MadCap marketing literature if you want a full rundown of every feature and enhancement in Flare 12. In this article, I'll share my experience using a preview version of Flare 12 for a month or so before it was released to the public. To honor the 12th major release of Flare, I'll share twelve features and enhancements I'm excited about.

1. New Advanced Stylesheet Editor

Hands down, my favorite new feature in Flare 12 is the Advanced Stylesheet editor. As you can see in Figure 1, the new editor shows you multiple media types as columns, and you can view as many (or as few) columns as you want at a time. As you scroll through the settings, all columns stay in sync, so you can easily see how a setting is different in various media sections.

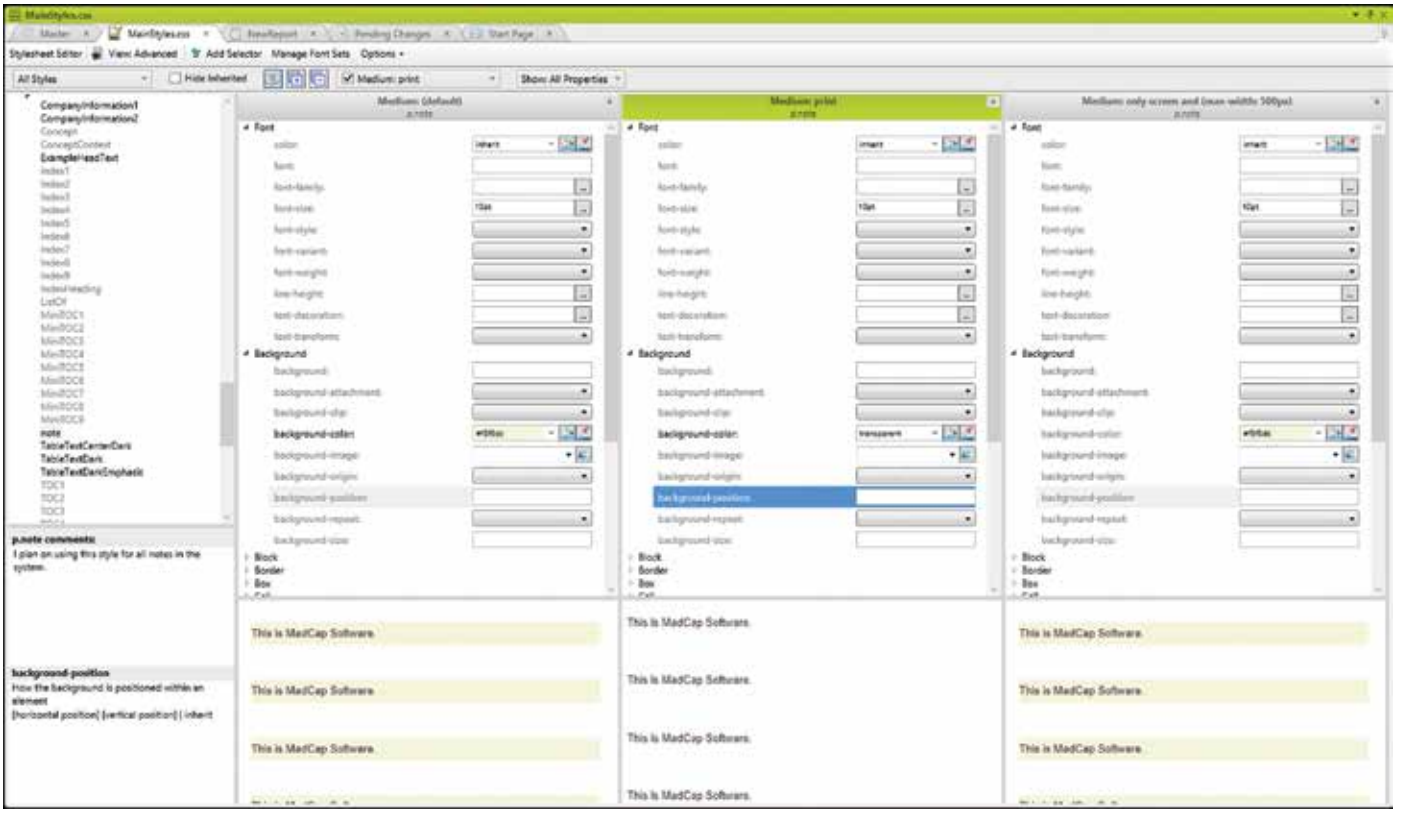


Figure 1. Advanced Style Sheet Editor. The new editor allows you to see multiple media types simultaneously, helping you avoid making changes to the wrong media section.

Other editor enhancements include the ability to see media query sections in the stylesheet. This allows you to have different CSS settings depending on the user's display width, automatically adjusting, for example, between desktop, tablet, and phone settings. In older versions of Flare, I would manually add a media query, and then manually adjust the settings in an external text editor. Now the Flare interface will let you create media queries and see their settings as a unique media.

In the bottom left corner of Figure 1 you can also see two new features. The top one allows you to make comments related to a specific style, so you can document as you go, explaining why you have multiple classes of the P element, for example, and how you expect these to be used.

The bottom box shows you information about the property setting you have selected, giving you a definition, and some of the options available for that property.

The new advanced style sheet editor is a huge leap forward. In every Flare training class I've given, I warn students that they would inevitably make the mistake of editing the wrong media section, and would be frustrated because the intended change wasn't implemented. With this new side-by-side display of media types, Flare users won't encounter this trouble anymore.

2. Multiple Stylesheets to a Topic

This may seem like a simple feature, but it solves a real problem that I continue to see people encounter. In older versions of Flare, you could either choose the stylesheet at the project level, or at the individual topic level. If you only have one stylesheet, this isn't a big deal, but if you are working with multiple stylesheets (either because you are importing a stylesheet from a parent project, or because you have an advanced use case for using multiple stylesheets), it becomes difficult. If you set it at the topic level, then you'd have to link a stylesheet to all new topics and all new snippets. If you set it at the project level, you couldn't override it for a single topic.

Flare 12 allows you to select multiple stylesheets for the project and for individual topics. If you are importing styles from a parent project and you want to override a specific style, you can now create a stylesheet that is local to this project, and call it *after* you call the imported stylesheet, giving you total control over how style settings cascade to show what you want.

3. Cross Reference Enhancements

This is really more of a bug fix than a new feature, but it is a big enhancement in my opinion. In Flare, a cross reference is similar to a link, in that it allows you to point to a different topic in your project. A cross reference differs from a link in some important ways. First a Flare cross reference always shows the heading (or text) of the paragraph that it is linked to, so even if you update the title of the target file, it is updated in all cross references to that title. Second, a cross reference understands where

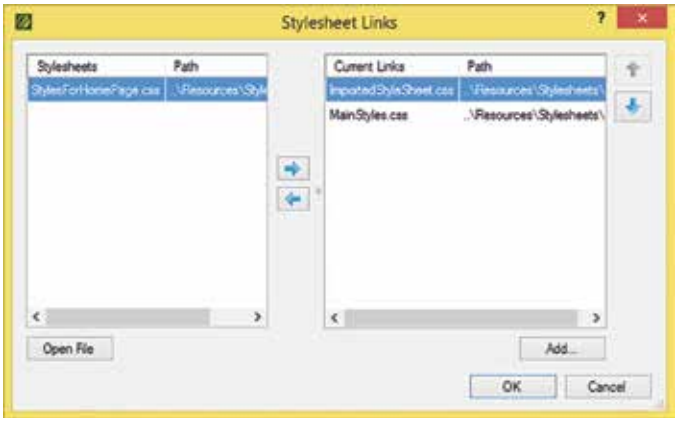


Figure 2. Stylesheet Links. You can now select multiple stylesheets, and determine the order they are read, for individual topics or for the entire project.

the target topic is contextually, and in printed output will generate text to direct the reader to the correct page.

In older versions of Flare, the cross reference functionality was limited by a bug that wouldn't show variables in the cross reference text. For example, let's say I want to create a cross reference to a topic with the first H1 (title) of "<My_Product>'s New Features." The term <My_Product> is a variable that can be changed globally in the variable editor, or it can be set for individual targets. The problem is that in Flare V11 and older, a cross reference to this topic would look something like this: "For more information, see 's New Features on page 20," completely omitting the variable.

Flare 12 fixes this so that cross references targets can include variables, which is a big win for those who use cross references and variables extensively.

An enhancement to cross references in Flare 12 allows you to insert a cross reference to non-heading content without needing to first place a bookmark in the target location. For example, if you want to create a cross reference to a location in a different topic that uses a drop-down head, you don't need to create a bookmark in the target. You can just insert a cross reference, and when you select the topic, you can click the bookmark icon. The Select Bookmark window, shown in Figure 3, allows you to point to a variety of content items in the target topic, including paragraphs, headings, styles, drop-down text, table cells, and more.

4. Conditions for Styles

Flare 12 includes the ability to link a condition setting to a style, which may seem curious at first glance, but is surprisingly powerful.

Something I always encourage my Flare clients to do is to create a condition called "DoNotDistribute" which allows you to mark content so it will never get built into an output. This allows you to put author notes and other content inline in your content without worrying that it will get published accidentally. With Flare 12, you can actually

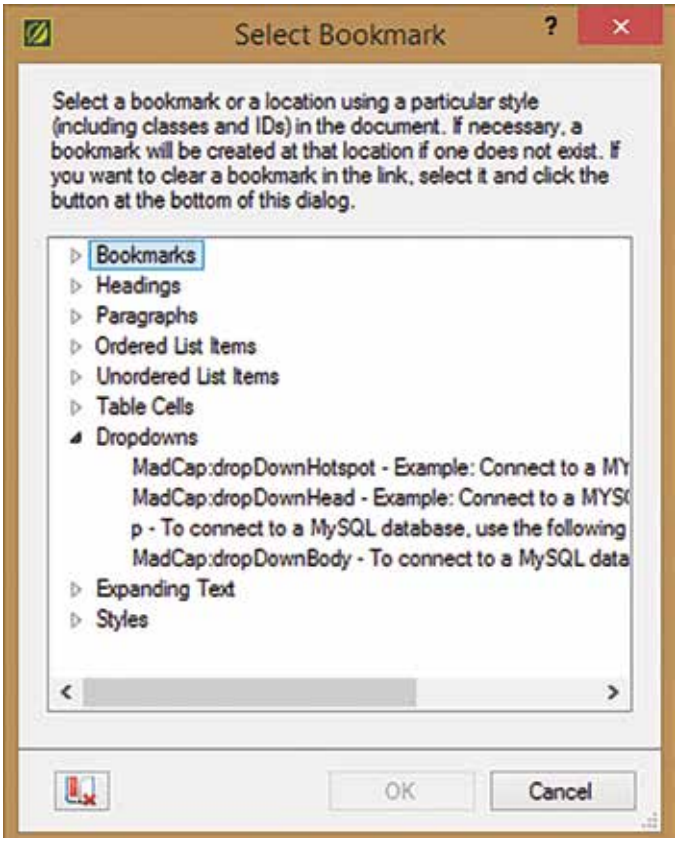

Select Bookmark
Select a bookmark or a location using a particular style (including classes and IDs) in the document. If necessary, a bookmark will be created at that location if one does not exist. If you want to clear a bookmark in the link, select it and click the button at the bottom of this dialog.
Bookmarks
Headings
Paragraphs
Ordered List Items
Unordered List Items
Table Cells
Dropdowns
MadCap:dropDownHotspot - Example: Connect to a MY
MadCap:dropDownHead - Example: Connect to a MYS
p - To connect to a MySQL database, use the following
MadCap:dropDownBody - To connect to a MySQL data
Expanding Text
Styles
OK
Cancel

Figure 3. Select Bookmark. When you select a bookmark for a cross reference, you can now link to a variety of pre-identified content types including paragraphs, table cells, headings, drop-downs, or styles.

create a style for that content and apply the condition to the style. Now when you use the style that has the "DoNotDistribute" condition, that content is automatically conditionalized as well.

Clients often have certain content that is only displayed to their internal audiences and isn't displayed to the customer. Sometimes this content includes metadata like the version where new content was introduced, or a bug or ticket number that prompted a specific change. These

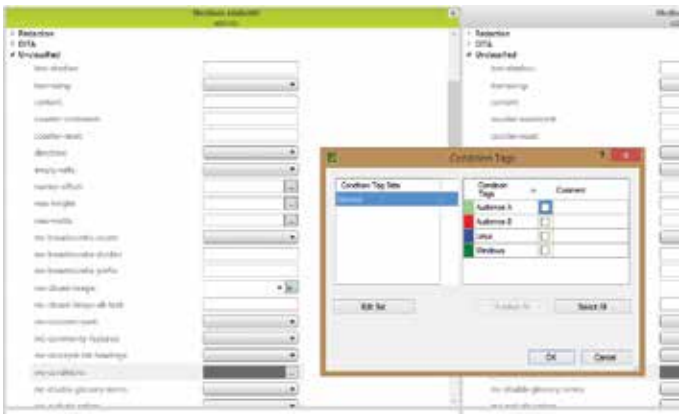


Figure 4. Style Conditions. Hidden in the "Unclassified" group of properties, the Conditions setting allows you to link a condition to a CSS style.

clients are already applying a specific style (so the internal audiences notice this content), and in the past, they also had to do the additional step of marking that content with a condition. With Flare 12, you can just set the condition in the style settings, and now that extra step is eliminated, which reduces the overall chance of forgetting to conditionalize the special content.

5. Snippet Enhancements

Snippets are one of my favorite features in Flare, and in Flare 12, they get a significant boost in functionality. One project I'm working on has over one hundred snippet files. Managing them can be a bit of a challenge. Flare 12 has improved the snippet insertion box so you can pin your favorite snippets for easy access. It also displays a list of recent snippets.

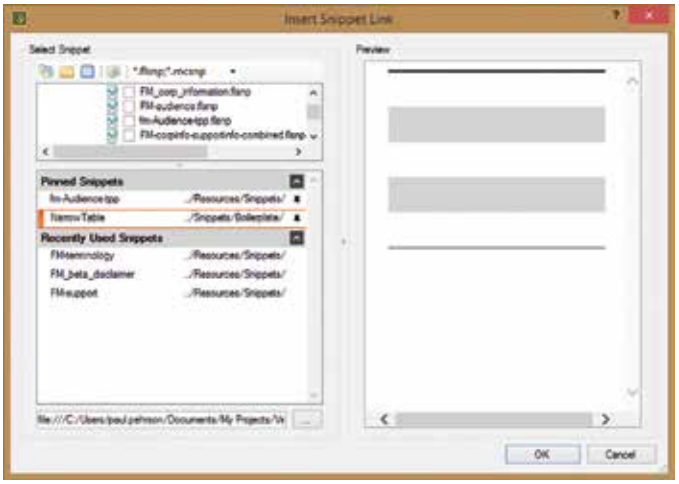


Figure 5. Insert Snippet. The new Insert Snippet box lets you pin your favorite snippets, and shows you the snippets you used most recently.

If you've ever used snippet conditions (the ability to use the same snippet in two topics with different content, depending on the condition applied to the topic), you'll love how Flare has enhanced snippet conditions in Flare 12. Now you can either define the snippet condition at the topic level, or you can define the snippet condition at the location it is inserted in your content. This means you could have one snippet used multiple times in the same topic, with different content each time the snippet is inserted.

For example, suppose you have a snippet that contains installation information for both Windows and Linux systems. You can conditionalize the content in the snippet, then you can insert the snippet into two separate locations in a topic. You set the conditions for the first snippet instance to show the Windows content, and you set the content for the second snippet instance to show the Linux content.

In addition, if your snippet includes a variable, you can specify a different variable setting for each snippet instance in a single topic.

I've seen people asking for these types of snippet enhancements in the Flare forums, and I'm glad to say that they are powerfully implemented in Flare 12.

6. Conditions in Glossary

If you've ever used multiple glossaries so you could provide different glossary terms for different targets, you'll be interested to know that in Flare 12, you can set a condition for each glossary item, in the same way you can use conditions in other places in Flare.

This gives you powerful control over how glossary terms will appear in different targets, making it so you may only need a single glossary. Generally, I expect this feature to make it easier to maintain glossary terms in Flare.

7. Responsive Output

MadCap is touting this feature a lot in their marketing, and it is pretty cool and powerful, giving you incredible control over how your content is displayed to your customers. It exposes features related to the Foundation grid system, allowing you to create table-like layouts using DIVS, but with the important feature that these items will adjust properly to narrow screen sizes like phones and tablets.

I predict that this feature is something that will not be widely used by average Flare users, at least in the beginning, but I think it lays the foundation for dynamic content unlike anything you're accustomed to seeing in a help system output. I'm looking forward to seeing how some expert Flare users utilize this ability.

8. Media Queries

While I mentioned this a bit earlier when discussing stylesheets, it is worth mentioning again the ability to work with media queries directly in Flare. For several years, I've been doing all my media query entries in the text editor, which can be daunting for some Flare users. By exposing the media queries in the stylesheet editor, as well as in the topics themselves, you can better see how Flare will render your content on a variety of screen sizes.

When authoring in Flare, you can click the "Medium" button on the toolbar, and all your media sections are displayed, including any media queries in your stylesheet.

9. 64-Bit Support

Beginning with Flare 12, Flare is a 64-bit application. That means you will now require Windows 64-bit to run Flare. Most new Windows computers (some statistics say as high as 90%) come with a 64-bit operating system, so if you have a newer computer, you likely already have the correct operating system. (You can right-click on your Start icon and select "System," and then look at the System Type value, and that will tell you if you have a 32- or 64-bit operating system.

MadCap says the new 64-bit architecture will benefit users with large projects, or users who like to have multiple topics open at the same time, suggesting we will see speed improvements. In practice, I don't have a way to officially benchmark the speed, but I tested a build of a 550-page PDF target in both Flare 11 and Flare 12. The build time actually increased by about five seconds in version 12, but that's not very significant for the size of PDF file I was building (2:19 in Flare 11 versus 2:24 in Flare 12).

10. GIT SSH Support

If you'd like to use Flare to connect to source control, but haven't been able to use the GIT integration because Flare didn't support SSH connections for GIT, you will be happy to hear that Flare 12 supports SSH for GIT repositories. In today's world I'm happy to support any technology that increases the security of information that is transferred over a network, so this is a good step forward for GIT users.

11. HTML5 Skin Improvements

If you aren't using TopNav output, but are using the tri-panel HTML5 target, you should know that with Flare 12, you can now programmatically call different skins via URL. This allows you to have a minimalist skin for context-sensitive help, while retaining a full-feature skin for your traditional help channel. MadCap calls this feature "Runtime Skins."

12. Track Changes Improvements

When generating to a PDF or Word target, you now have the ability to show tracked changes to a topic. Much like in Word, where you see bubbles to the right of the screen, Flare will generate a Word document, or a PDF document with these change bubbles. This allows you to easily show what changes you're proposing to a topic in a format that is easy to share with your colleagues. These changes are automatically generated into the Word document, so you can enable "Show Changes" in Word to see them after the Word document is published.

Summary

Flare 12 is a great improvement for my favorite authoring tool. It has a nice mixture of changes that enhance the writing experience for the help authors, as well as changes that affect our customers who use the documents we create. There are a ton of other features, big and small, that I wasn't able to cover in this review including enhancements around multilingual output, help output that is live or local, high DPI support, page breaks, and more. You can find out more about the latest version of Flare at *www.madcapsoftware.com*, where you can also request a free trial of Flare.

PAUL PEHRSON *is a seasoned technical writer, MadCap Flare trainer and consultant, and the father of five children. He has served in leadership positions in his local STC chapter, as well as serving on various STC committees. He lives in a suburb of Salt Lake City, Utah.*

Annual Review

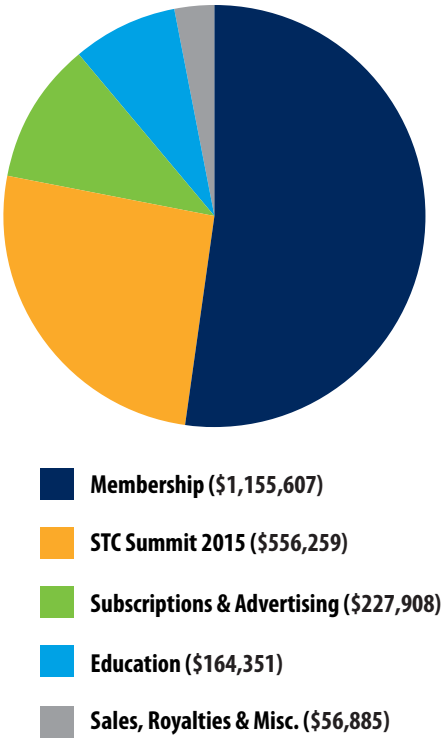
BY CHRIS LYONS | *CEO* and
BERNARD ASCHWANDEN | *President 2015–2016*

WE WOULD LIKE to thank all of the members of the Society for Technical Communication for their support and engagement again in 2015. It was a year with some challenges, but a great deal of progress was made in improving programs and expanding benefits for members. In 2015 STC was stronger than it has been for several years and, as 2016 begins, is poised for growth.

In 2015 we continued to look for ways to enhance STC membership benefits. Last September, we reduced the price of Gold membership for 2016 new Gold members and renewals. We also introduced a free Education Report Card for all members, a professionally formatted compliment to a resume showing currency in the field. In response to trends in the field, an Application Programming Interface (API) Special Interest Group (SIG) was created as well as a series of API-related webinars. The annual *Salary Database* was improved with the inclusion of a free webinar explaining ways to use the survey depending on an individual's goals. Finally, we continue to expand the Corporate Value Program (CVP), growing membership through this discount program by 20%. At the end of 2015, STC had nearly 500 members enrolled through the CVP.

Many aspects of the Technical Communication Summit were modified in 2015 to make them more impactful and new events were introduced. In Columbus, Ohio, the Community Reception was moved to the Expo Hall in conjunction with the community awards. The Honors Reception was trimmed to a faster paced, more casual reception with no additional fee and open to all attendees. New programming at the Summit included a closing keynote speaker and a highly popular speed-networking event. Attendance may have been lower than past years due to location and a holiday weekend, but attendee satisfaction was very high. We intend to make the 2016 Summit in Anaheim, California, even better.

The most exciting accomplishment of 2015 was the reopening of the STC Certified Professional Technical Communicator (CPTC) certification program. After over two years of study and re-engineering, the CPTC program reopened in December. The new three-tier program launched the Foundation exam through our UK-based partner APMG International. We are pleased to be setting the pace for professional certification in the field and will be working to fully develop the certification levels as well as robust continuing education offerings. STC members are offered a significant discount on cost, so please look into becoming CPTC certified.



STC Sources of Revenue in 2015

STC saw strong financial performance again in 2015. Moving forward, we will ensure fiscal prudence so that STC will continue to be a strong and viable leadership organization for the field.

This Year in Review highlights the actions taken in 2015 to strengthen the Society's programs, increase value to members, and lead the field of technical communication. We hope all STC members and volunteers will share in these accomplishments and continue their generous support.

To read the entire 2015 Year in Review, visit *www.stc.org/images/stories/pdf/stc2015yearinreview3.pdf.*

2015–2016 Board of Directors

2016 Summit Virtual Track

CAN'T MAKE IT to Anaheim? You can still participate in the Summit live with the Virtual Track option! The Virtual Track (16 and 17 May) offers a way to attend part of the Summit from the comfort of your own home or office and includes 10 carefully selected sessions from a cross-section of the overall Summit education program (*http://summit.stc.org/2016-summit-virtual-track*). During the breaks, you'll also have a chance to hear from STC about the latest news and programs, and discover technology trends from a selection of exhibitors.

Virtual Track attendees will log in with a provided link and be able to follow along in real time with both the audio and the presentations. Watch one or watch them all; you can log in or out as your schedule allows. Each session will have a moderator so you can ask questions and interact with the session as if you were there in person.

The pricing for an individual STC member is $495 and $995 for a nonmember individual. A group discount of 10% off the individual price will be applied to two or more individuals from the same company. Contact Cheryl Miller at *cheryl.miller@stc.org* to receive the group discount.

shutterstock.com/venimo

The Virtual Track provides four CEUs toward CPTC currency. CEUs apply only to those who are certified and cannot be counted retroactively. Only registered Virtual Track attendees will receive those CEUs. Visit STC's Certification page for more information (*www.stc.org/certification*).

Summit 2016 Preconference Offerings

THE SUMMIT OFFERS one two-day preconference certification prep course and several half- or full-day preconference workshops to enhance your learning experience at the Summit. These preconference sessions allow you to dive deeper into a subject, work in small groups, and leave with practical, implementable knowledge for your career. See below for a complete listing of preconference sessions. Visit *www.summit.stc.org/schedule* for complete details and descriptions. These preconference sessions are an additional fee and space is limited. Contact Cheryl Miller at *cheryl.miller@stc.org* to add a preconference session to your registration.

Two-Day Course

Saturday, 14 May, 8:30 AM–4:30 PM
Sunday, 15 May, 8:30 AM–5:00 PM

- CPTC Foundation Certification Preparatory Course & Exam, with Alan Houser

Full-Day Workshops

Sunday, 15 May, 8:30 AM–4:30 PM

- Creating Mobile Apps without Coding, with Neil Perlin
- Information Visualization: Seeing Through the Numbers, with Phylise Banner

Half-Day Workshops: Morning

Sunday, 15 May, 8:30 AM–Noon

- Creating an Online Course, with Matt Sullivan
- Documenting Rest APIs, with Tom Johnson
- Writing in English for the Global Market, with Ray Gallon

Half-Day Workshops: Afternoon

Sunday, 15 May, 1:00 PM–4:30 PM

- Adobe Captivate vs. Articulate Storyline vs. TechSmith Camtasia Studio: Which eLearning Tool is Right for You?, with Kevin Siegel
- Developing User Assistance for Mobile Apps, with Joel Welinske
- Gamifying Writing Skills, with Leah Guren

Out and About in San Diego County

BY ALICE BRZOVIC | *Member*

SOUTHERN CALIFORNIANS measure distance by driving time. If traffic permits, you can drive the 97 miles from Anaheim to San Diego in 90 minutes. What you do once you get here depends entirely on your interests.

A good place to begin your San Diego adventure is in Balboa Park, a 1200-acre urban park where both locals and tourists like to hang out.

Want to see a play? The Old Globe has three stages. Want to go to a museum? Check out the San Diego Art Museum, the Mingei International Museum, the Museum of Photographic Arts, the Natural History Museum, the Museum of Man, Reuben H. Fleet Space Center, or the free Timken. Want to hang out with the animals? Visit the San Diego Zoo. Want to be a little kid? Catch a ride on the Balboa Park Carousel or Miniature Train. Like to shop? Visit the Visitor Center, the Spanish Village Art Center, or the UN building's International Gift Shop. Want to relax outdoors? Listen to a free concert at the Organ Pavilion, stroll around the Alcazar Garden behind the Mingei, around the Lily Pond and Lagoon in front of the Botanical Building, or find a shady spot to stretch and take a nap.

If you're a history buff, stop by the San Diego Historical Society at Casa de Balboa while in Balboa Park to learn more about the region's history and historical landmarks. Then head down to Old Town San Diego State Park to see the original Spanish settlement and other early California buildings. If you want to see how the locals lived before the Europeans arrived, visit the Kumeyaay-Ipai Interpretive Center at Pauwai (Poway).

Other worthwhile attractions around San Diego County include the San Diego Zoo Safari Park (formerly Wild Animal Park), SeaWorld San Diego, Birch Aquarium at Scripps, Legoland, the Museum of Making Music, and the California Surf Museum.

May is a great time to visit San Diego's mountains, only 40 minutes away from downtown San Diego. The Sunrise Highway (S1) will take you to the Desert Picnic Area in the Laguna Mountain Recreation Area, where you can see the sun rise over the Colorado Desert and Pacific Crest Trail.

From the picnic area, drive north to Highway 79 to visit the quaint mining town of Julian, known for its homemade apple pies.

You can walk off the pie by hiking one of the many trails found throughout the San Diego County. Jerry Schad's *Afoot & Afield in San Diego County* (Wilderness Press) describes most of them, from the beaches to the desert.

A hike may make you feel thirsty. Good thing San Diego is the capital of craft beer in America. To learn more about the microbrewery scene and tours, visit the San Diego Brewers Guild Web site.

While you're in San Diego, make sure you visit the Goldstar discount ticket Web site to see what's playing. San Diego has many high-quality theater companies, from small neighborhood troupes to the nationally renowned Old Globe in Balboa Park and La Jolla Playhouse.

Other venues include the Moxie at Rolando, Cygnet in San Diego's Old Town, the Diversionary in North Park, Lamb Players Theater in Coronado, North Coast Repertory in Solana Beach, New Village Arts in Carlsbad, and the San Diego Repertory at the Lyceum in Horton Plaza.

After seeing a play at the Lyceum, walk east to enjoy San Diego's hip nightlife in the Gas Lamp District. Or, walk west to enjoy views of San Diego Bay.

Most days in San Diego County are good days to go to the beach. If you want to just relax and swim, La Jolla Shores is one of the most beautiful and inviting swimming beaches anywhere. Go to Mission Beach if you want to "make the scene" on the boardwalk, or head to Point Loma if you want to explore tide pools in a stunning landscape. If you like to walk, check out the local favorite Torrey Pines State Beach or the isolated and wild Silver Strand State Beach.

San Diego has everything anyone could want—good weather, parks, mountains, cafes, microbreweries, performing arts, a waterfront, a lively entertainment district, and 70 miles of coastline. So, when you're done with Summit 2016, it's time for you to zip down the freeway for a fun getaway.

shutterstock.com/Dancestrokes

Balboa Park's Casa de Balboa Building in San Diego, California

Exploring Orange County's Downtowns

BY MICHAEL OPSTEEGH | *Senior Member*

WHILE YOU'RE ATTENDING the Technical Communication Summit in sunny Anaheim, California, you may want to get out from the shadow of the mouse and check out the downtown districts in Anaheim and neighboring cities. These charming boulevards offer local shopping and unique dining opportunities and provide the perfect getaway for extended lunches or after-session dinners. The early Twentieth Century facades draw a distinct contrast from the bustling, modern suburbs and are a sanctuary from overly commercialized areas. And, they're all a short cab ride away.

I'll cover some of the highlights in this article, but each of these quaint downtowns offers even more to the discerning traveler.

Downtown Anaheim: 3 miles

The crown jewel of Anaheim's downtown is the Packing District. This hipster haven is an old warehouse converted into a unique mini-mall. There you will find shops selling hand-crafted wares, small-batch ice cream, delicious dining, and even a speakeasy, all under one roof.

If you're looking for a great veggie-centric meal, check out the beatnik-style Gypsy Den about four blocks away from the Packing District.

Anaheim Packing District
440 S Anaheim Blvd.
Anaheim, CA 92805
www.anaheimpackingdistrict.com

Gypsy Den
211 W Center Street Promenade
Anaheim, CA 92805
www.gypsyden.com

Downtown Fullerton: 5.2 miles

Downtown Fullerton used to be an array of sleepy antique shops, but in recent years, has reinvented itself into a wide range of restaurants, specializing in delectable cuisines and craft cocktails. Many of these restaurants feature long bars and turn into night clubs after 10:00 p.m.

The Matador, in the heart of downtown Fullerton, offers a range of traditional Mexican and contemporary Mexican-inspired cuisine. Large portions and excellent service set this place apart. Sample a wide range of tequilas. If you arrive early, check out their smashing Sunday brunch.

Around the corner, you'll find Stubrik's, a top-notch steakhouse. Even their salads will satiate the most voracious appetite. In addition to steaks, Stubrik's offers a great selection of chicken and fish dishes as well. My all-time favorite dish, though, is the black and bleu filet mignon.

The Twisted Vine is on my frequently-visited list. Every wine enthusiast should make the trip here. You'll find a wide selection of wines and bottled beers. As the owner jokingly told me once, "We don't sell grocery store wine here." And they don't. Felling a bit peckish? The Vine serves a variety of small dishes and finger foods, specially prepared in their on-site kitchen.

Although technically not in downtown proper, The Olde Ship deserves a special mention. It's a few blocks north of downtown, and it has been my home away from home. It's as authentic a British pub as you'll find this side of the pond. Pop in for a traditional pub lunch and swift pint. As they say, "you're only a stranger but once."

The Matador
111 N Harbor Blvd.
Fullerton, CA 92832
www.thematador.com

Stubrik's Steakhouse
118 E Commonwealth Ave.
Fullerton, CA 92832
www.stubriks.com

shutterstock.com/Timolina

Visit The Matador in Fullerton, CA, or Azteca Mexican Restaurant in Garden Grove to sample Mexican inspired cuisine.

visitanaheim.org

The Anaheim Packing House

The Twisted Vine
127 W Commonwealth Ave.
Fullerton, CA 92832
www.twistedvinewines.com

The Olde Ship
709 N Harbor Blvd.
Fullerton, CA 92832
www.theoldeship.com

Downtown Garden Grove: 3.5 miles

Garden Grove's downtown is small but mighty. It's close to the Summit, and I frequently make a trip out of my way to see what's on offer.

Azteca Mexican Restaurant is truly unique. It features Elvis memorabilia (and a lot of it) and karaoke. They specialize in authentic Mexican cuisine, and they offer a family-friendly environment.

Louie's on Main is one of my favorite stops. Drop in for one of their famous steak sandwiches and stay for an ever growing selection of craft beers on tap. The atmosphere is relaxed, and the local patrons add a flavor you can't find anywhere else.

Azteca Mexican Restaurant
12911 Main St.
Garden Grove, CA 92840
www.aztecaoc.com

Louie's on Main
12942 Main St.
Garden Grove, CA 92840
www.louiesonmain.com

Downtown Orange: 4.5 miles

Downtown Orange is great place to spend an afternoon. While it features an assortment of restaurants and bars, it hasn't sacrificed the slower pace of a bygone era. Although it seems like they roll up the sidewalks at ten o'clock, you won't want for things to do. Leisurely stroll down the narrow streets and peek into antique shops (and malls!), where you're likely to find any collectible you're seeking. At the heart of the downtown area is a traffic circle, which the citizens of Orange will politely inform you is called "the plaza" (not the circle). Sit down on a bench and watch the busy shoppers pass by.

Haven Gastropub is a must-visit restaurant to grab dinner and enjoy a libation. The fare is New American. Enjoy pigs' ears, shepherd's pie, coffee-roasted beets, or butter-basted bass. No matter your palette, Haven has something in store for you.

Provisions Market is operated by the owners of Haven, and by all appearances is Haven's tasting room. There you'll find a wide selection of local craft beers and ciders. Even if you don't want to quench your thirst, Provisions offers a range of finger foods and sandwiches that are unmatched in Orange County. Need a caffeine fix? Check out the Portola Coffee Lab at the front of the shop.

Watson's Drugs whisks you back to the 1940s. This full-service pharmacy is also a soda fountain and soda shop. Enjoy a delightful lunch as you sip a chocolate phosphate or malt shake. As someone who has listened to countless Jack Benny radio programs, I love be transported back in time to place where you can order a sandwich and cup of coffee at the counter in a drug store.

Haven Gastropub
190 S Glassell St., Orange, CA 92866
www.havengastropub.com

Provision's Market
143 N Glassell St., Orange, CA 92866
www.provisionsmarkets.com

Watson's Drugs
116 E Chapman Ave.
Orange, CA 92866
www.watsonsdrugs.com

This article merely scratches the surface. Orange County's many downtown districts offer many more fun and exciting dining and shopping experiences. As an Orange County native, I enjoy getting away from the prolific chain restaurants and exploring the endless opportunities that abound in our local downtowns. If you're in need of a suggestion for local fare, send me an email (*michael@ocstc.org*) or find me at the Summit. See you in Anaheim!

The Key to Adoption

shutterstock.com/Bakhtiar Zein

BY RAY GALLON | *Senior Member*

IN THE LAST Standard Deviation column, Alan Houser raised some important questions about how to measure if a standard is successful. His inquiry about how we find useful standards "in the wild" raised another important question: should we have general, independent standards for technical communication, or are we best served by sections included in specific industry-related standards?

In an ideal world, I would answer, "both": 1) we need standards for the profession to determine best practices, norms, etc. at a high level; and 2) each industry needs to focus on its specific needs and specify them. In the real world, we can't always depend on this.

Why develop a standard?

In my view, a standard should be developed only when there is a specific, expressed need. For example:

- The mobile telephone systems of the world need to be technologically compatible with each other to permit international roaming.
- In order to efficiently distribute electrical demand load across the European continent, European countries need to agree on a common voltage for high-tension transmission, and for step-down to domestic use. Common voltage is also necessary for efficient manufacturing of electrical appliances.
- In a global economy, certain basic terminology related to health, safety, or security needs to have agreed definitions and associated symbols that are used in documentation.
- Airport signage needs to use standardized visual symbols to avoid linguistic (and cultural) misunderstanding.
- Companies developing new technologies see that there is more advantage in having standardized signalling protocols, file formats, etc. that leave them free to develop functionality,

Standard Deviation is a column all about standards—a subject that affects most of our lives, but that we seldom think about. As the title implies, I want to keep the conversation lively and engaging. I'm always looking for guest columnists, and we welcome feedback with comments or requests for standards-related topics to cover. Email me at *rgallon4stc@culturecom.net*.

rather than competing over (and wasting money on) which company's proprietary format will become a de facto "standard."

- Regulated industries need to know the standards to which they will be held accountable in different parts of the world.

Why use a standard?

One response that came in to our request for information about what standards people use in their daily work came from STC member Mike Unwalla, who uses the Simplified Technical English (STE), specification ASD-STE100 (*www.asd-ste100.org*). Mike mentions that there are around 3,300 copies of the latest version in distribution. This specification is available for free, but Mike says he paid for it in the past, because it was useful.

His response got me thinking: like DITA, mentioned by Alan Houser in his guest column, STE is about *practice*. It's not about what you should or shouldn't say in a document, and it's not even directly about information typing or structure. DITA is, of course, about semantic markup, but the structure that derives from DITA is the result of *using* DITA, not the result of specifying the structure a document must have to meet a certain norm. To clarify, we technical communicators like standards that provide us with tools. DITA as a specification is useless to us—we need editors and content management systems that enable it. These tools, together with the DITA schema, guide and facilitate our work.

The DITA technical committee, of course, thinks about structure and information typing—that's their job. But instead of specifying what structure we ought to use, and which information types need to go where, they specify a tool that helps us do that ourselves in a practical way.

Otherwise, as Mike put it, "Much of the information in the standards that I know about is the type of information that is available for a tenth of the price in a good reference book.... Why bother with a standard?"

Where should they come from?

Returning to the initial question, "Should we have general tech comm standards or should they be embedded in industry-specific standards?", the real-world answer has to be, "Wherever we get the most practical results."

"Most practical" might mean not in an official standard at all. The *Microsoft Manual of Style* has become the de facto standard for software documentation. I don't think I've ever worked in a technical communication department that didn't have a well-thumbed copy of it.

The question echoes a decades-long debate about whether technical communicators themselves should be in their own department, or embedded with project teams, and like that debate, it probably does not have one definitive answer. But one thing should be clear: without adoption, there's no standard, and to get adoption, a standard must be practical, available, and meet a clearly expressed need.

FOUNDATION CERTIFICATION NOW OPEN

STC's Certified Professional Technical Communicator (CPTC)

RELAUNCH

CERTIFIED PROFESSIONAL Technical Communicator CPTC™

CERTIFIED PROFESSIONAL Technical Communicator CPTC™ FOUNDATION

CERTIFIED PROFESSIONAL Technical Communicator CPTC™ PRACTITIONER

CERTIFIED PROFESSIONAL Technical Communicator CPTC™ EXPERT

For more information on Foundation Certification, visit **www.stc.org**.

STC

The ROI Mindset

shutterstock.com/Rawpixel.com

BY MARK LEWIS | *Associate Fellow*

DURING A RECENT TRIP to Daytona Beach, I sat in stalled traffic on the interstate, frustrated. Two years ago, this coast-to-coast drive was pleasant and relatively quick, but since then, Florida's population has grown so fast that the infrastructure is straining and construction crews can't build roads fast enough to keep up with the higher volume of traffic.

I felt similar frustrations with a content solution we used many years ago. My employer's company had grown, but the documentation department's capacity had not expanded at the same pace. We couldn't keep up. So I met with the company's owner, described my problems, and recommended purchasing some new tools as the solution. The owner rejected my proposal.

Why did I fail? Instead of focusing on the owner's goals, I was focusing on my own. I did not have the ROI mindset.

What is the ROI mindset?

If you're a content creator like me, you like words. But executives speak numbers, a language that's foreign to us. So, it's a words versus numbers game. Executives control all of the numbers preceded by $. Convincing executives to give you those dollars can be a battle, but with any battle, success is about strategy. You must get leadership's attention and prove that what you are doing supports the company's business plan, the business goals. You must prove that your content strategy is in alignment with the corporate strategy. You can design ROI metrics that provide the proof. I've been saying this for a few years, but now I'm saying that that is not enough. A strategy is a plan to support a goal. You need to align farther upstream and align all goals and strategies. And then you must apply the lean methodology to your processes, but not in the traditional way. In summary, this is the ROI mindset. Let's discuss the details.

Why is the ROI mindset important?

The ROI mindset is critical to your survival. You must communicate to executives the value of your department and the content it produces, if you want to:

- Keep your job (and the jobs of your teammates)
- Advance your career
- Keep your resources
- Keep your project
- Justify a new project
- Justify the purchase of new tools or services
- Justify new teammates

How do you apply the ROI mindset?

Supporting the business plan

One of the first questions that I ask a client is, "What are your business goals?" If they don't know, I show them a list of about 40 typical goals and then tell them to find out what their company's top three or four goals are. A few examples include increasing revenue, reducing costs, reducing time to market, shortening sales cycles, and increasing customer satisfaction.

Some clients tell me that they want to achieve all of the goals on my long list, but this isn't possible. Addressing any goal costs time and money, and companies are limited on both. The best strategy is to address the most critical goals—those that are aligned with the company's mission.

In the content world, metrics can be used to prove a business case, communicate value, or predict costs and savings. This column explores new thoughts and ideas in the area of metrics and ROI. Please send your ideas, comments, and questions to *mlewis@ditametrics.com.*

Here are two examples of how to use metrics to prove to executives that the business plan is supported. The first example correlates cost

savings with content reuse (see Figure 1). This trend shows that as the rate of content reuse increases, the average cost of producing a content topic drops. These metrics support the company's goal of reducing cost.

The second example examines time savings with increased content reuse (see Figure 2). When content is reused in the new content solution, the amount of content that must be created is reduced. As a result, the overall time to complete the project is shortened. These metrics support the company's goal of reducing time to market.

For a detailed list of business goals and metrics that you can gather to prove support, see the "Supporting the business plan" chapter of my book, *DITA Metrics 101*. Even if you aren't using DITA, you can apply the methodology described in my book to any schema that supports reuse.

Aligning goals and strategies

As mentioned earlier, a strategy is a plan to support a goal. But business goals aren't the only type of goal that must be supported. Other types of goals include:

- Content creator goals, which includes the goals of your content department and other roles involved in the content lifecycle, such as SMEs
- Customer (end-user) goals

Before we align strategies, we must align the different types of goals. The best practice is to capture all of these goals and objectives at the beginning of a project using surveys or interviews and then align them.

For example, let's say that a customer wants your organization to improve support and service. If your company determines that this is an important end-user goal, then your company should have a business goal to "improve support and service," which is typically a subset of "increase customer satisfaction." In this scenario, the customer wants improved support in the form of product content that is easier to find and consume than the current support method.

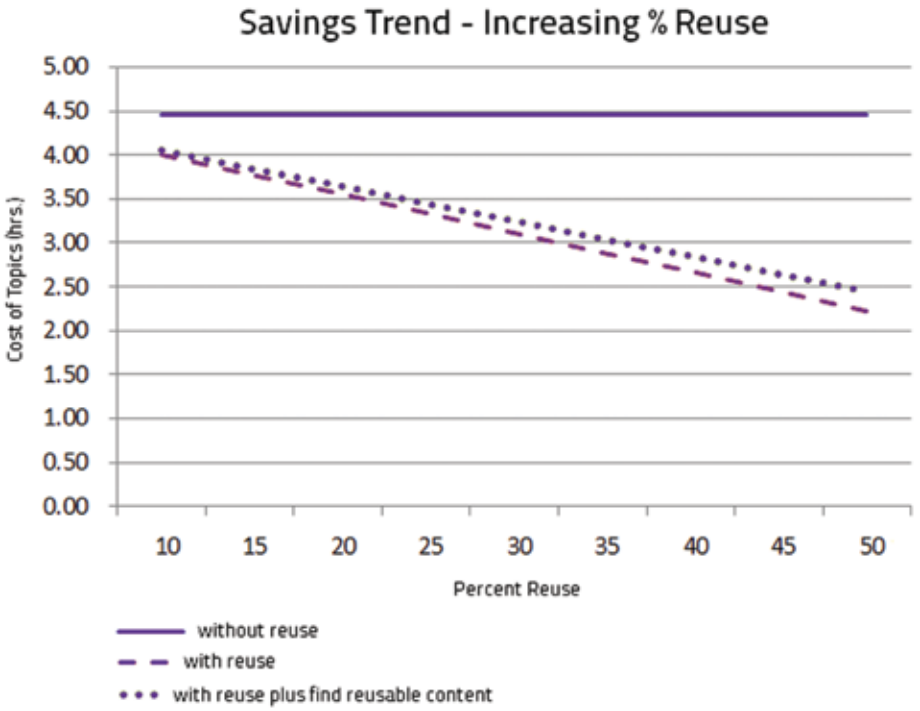


Figure 1. As percent reuse increases, the cost per topic decreases

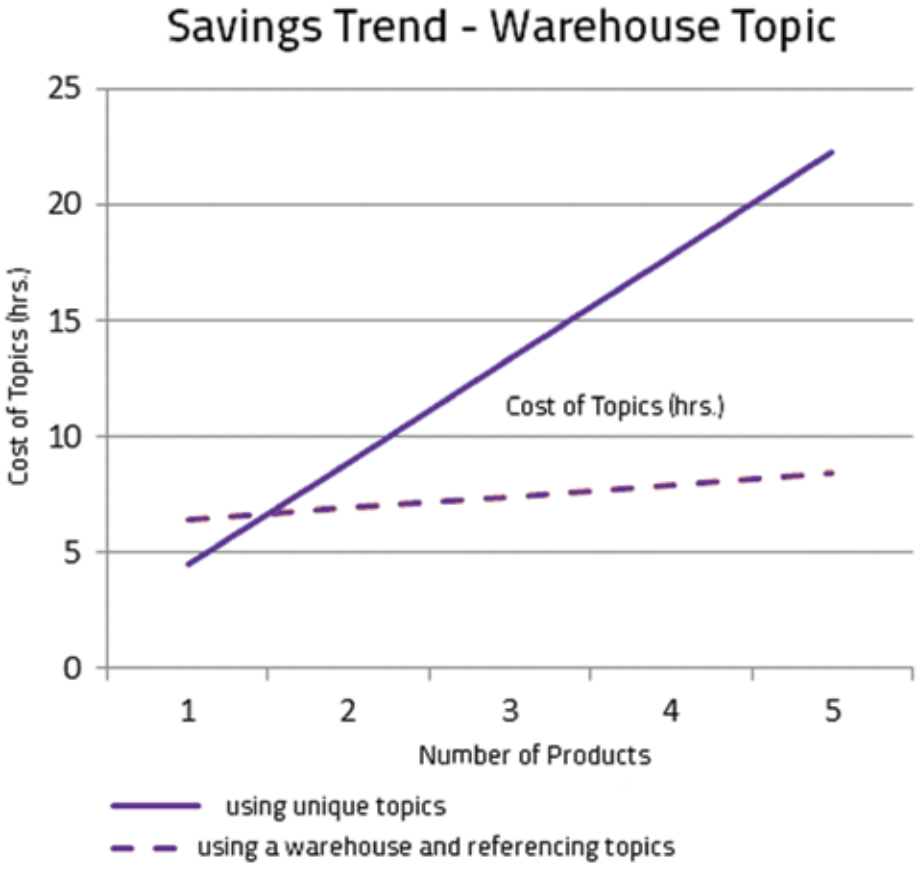


Figure 2. Time is saved when content is reused or referenced across products

In another example, let's say you're a content creator like me. And one of the business goals of your organiza-

tion is to reduce costs. You could have a goal to create content more easily and efficiently. Your goal to reduce effort would ultimately support the business goal of reducing cost.

After you've aligned the business, content creator, and end-user goals, then you can design the strategies that support those goals. Strategies developed in this way should be easier to align.

I've found other industries practicing goal alignment. In the March 2016 issue of the *Harvard Business Review*, the CEO of Rio Tinto, a multibillion dollar metal and mining company, stated that he "requires that all 60,000 of Rio Tinto's employees to adopt an 'owner's mindset' in order to align their interests [goals] with those of our shareholders."

After you've aligned the goals and the strategies, you're ready for the next step in the ROI mindset—leaning.

Leaning

This exercise applies to the processes that you must design as part of your strategies. It's not enough to think about the process, the series of tasks, in terms of ROI. You must think about these tasks from a *lean* perspective and ask, "Does the result of the task add value?" Typically the question is about adding value to a product, but I suggest that the question should be, "Does the result of the task address a goal?" The goal to be addressed may be any of the business, content creator, or end-user goals. If the result of the task doesn't address any of these goals, then the task is considered wasteful and should be eliminated.

For example, let's say you are considering creating content that would improve the sales team's performance. The content and task may help sales and, therefore, be considered as added value, but if improving the sales team's performance is not an approved goal, don't spend any effort creating that content.

Here's an approach for leaning with an ROI mindset when you are planning on moving from an antiquated content solution to a new solution based on the cool new technologies available.

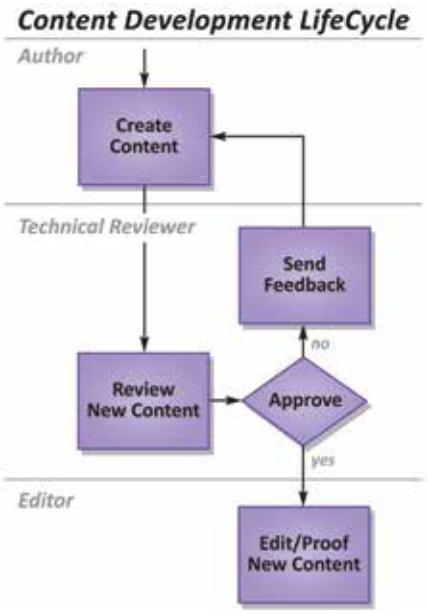


Figure 3. The process in the old content solution, with no content reuse

For each process in your content lifecycle:

- Design an effort-based cost model for the current process.
- Design a new process that takes advantage of new technologies.
- Design an effort-based cost model for the new process.
- Apply the lean methodology to the new process.
- Record how the results of the new process address a goal.
- Record the difference in cost (the savings) between the two cost models.
- Record these activities in a report to executives.

Make sure that the result of each task in each process in your new content solution addresses one of the business, content creator or end-user goals.

Conclusion

Over the past few years, I've frequently stated that you need to prove that your content strategy is in alignment with your corporate strategy. And in my book I've discussed how to design metrics that provide the proof. Now I'm saying that that is not enough. You should take a more comprehensive approach and adopt the ROI mindset.

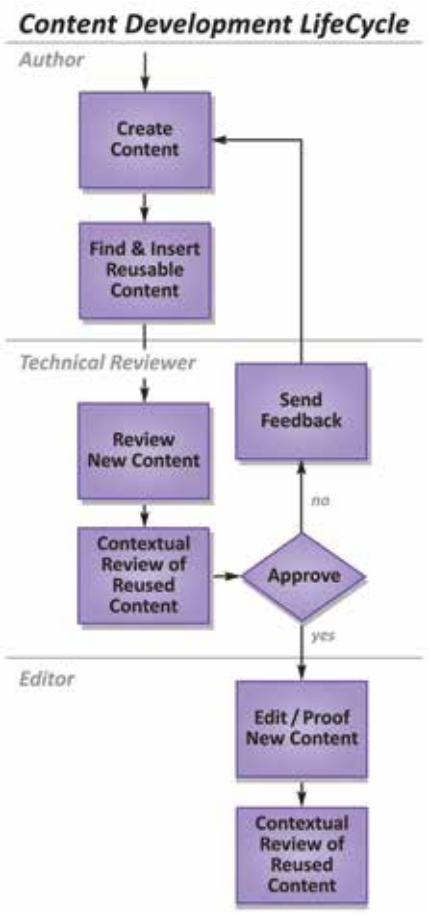


Figure 4. The process in the new content solution, which supports content reuse

A strategy is a plan to support a goal. Before you can align strategies, you must evaluate goals. Review business, content creator, and end-user goals, and align them as best you can. Then work on aligning strategies. The next step is to apply the lean methodology to each task in your processes to ensure that each task addresses at least one of your goals. Along the way, be sure to capture information about your aligning and leaning activities so that you can report them to executives. And yes, that report must include metrics. Remember, your need to speak your corporate leadership's language of numbers and goals, and that takes the ROI mindset.

Mark Your Calendar

Organization Events Across the Globe

F.Y.I. lists information about nonprofit ventures only. Please send information to *intercom@stc.org.*

1 1-2 Apr
The STC **New England Chapter** hosts the annual InterChange conference at the UMass Lowell Conference Center in Lowell, MA. For more information, please contact:
STC New England
interchange@stcnewengland.org
www.stcnewengland.org

2 6 Apr
The 2016 **Association of Teachers of Technical Writing (ATTW)** Annual Conference will take place at the Hilton of the Americas in Houston, TX. The theme is "Citizenship and Advocacy in Technical Communication." For more information, please contact:
ATTW
http://attw.org/conference/
Conference co-chairs
Godwin Agboka,
agbokag@uhd.edu
Natalia Matveeva,
matveevan@uhd.edu

3 2 Apr
The **Conduit 2016: Connecting Minds – The Mid-Atlantic TechComm Conference** will be held at the Giant Conference Center in Willow Grove, PA. For more information, please contact:
STC – Philadelphia Metro Chapter
conference@stcpmc.org.
http://www.stcpmc.org/

4 7-10 Apr
The **Association of Independent Information Professionals (AIIP)** will hold its annual conference from 7–10 April at the Omni William Penn Hotel in Pittsburgh, PA. For more information, contact:
AIIP
http://www.aiip.org/conference

5 8–10 Apr
The 2016 **International Society for Performance Improvement** Annual Conference will take place at the Loews Philadelphia Hotel in Philadelphia, PA. For more information, please contact:
ISPI
+1 (301) 587-8570
info@ispi.org
http://ispi.org

6 4-8 May
The **American Society for Information Science and Technology (ASIS&T)** will hold the IA Summit in Atlanta, GA. For more information, contact:
ASIS&T
asis@asis.org
http://www.iasummit.org/events/ias2016

7 15–18 May
The **Society for Technical Communication** will host its 63rd Annual Summit at the Anaheim Marriott in Anaheim, CA. For more information, please contact:
STC
+1 (703) 522-4114
http://summit.stc.org/conference/

8 15-18 June
The 2016 **American Society for Indexing** Annual Conference will take place at the Conference Chicago University Center in Chicago, IL. For more information, please contact:
ASI
+1 (480) 245-6750
info@asindexing.org
http://www.asindexing.org/conference-2016/

* STC-related event

That's No Moon®: Documentation Update

BY GEOFF HART | *Fellow*

INTERNAL MEMO

Security clearance: "need to know"

We at Imperial Elegance in Electrical/Engineering, Practical Construction Subdivision (PCS), welcome you to The Loop®, our internal newsletter for those who "need to know." If you don't need to know and you've read this far anyway, please report to Security. They'll know why.

The subject of this memo is the series of catastrophic failures recently suffered by our That's No Moon® line of weapons of mass destruction. In the first case, our Six Sigma (SS) team apparently failed to note the lack of a cover for a single exhaust port in our prototype of the Peace Star Mark I. (Please refrain from using the epithet "Death Star," which was spawned by those rebel scum ... about whom, more anon. The official slogan of the That's No Moon® line is "peace through superior firepower"®. Some collateral damage is inevitable, but to be regretted.) The documentation team responsible for this omission has been reassigned to prestigious new duties documenting outputs at the Tauntaun barns captured from the rebel scum on Hoth. We're told they're enjoying their new experience with "single sourcing."

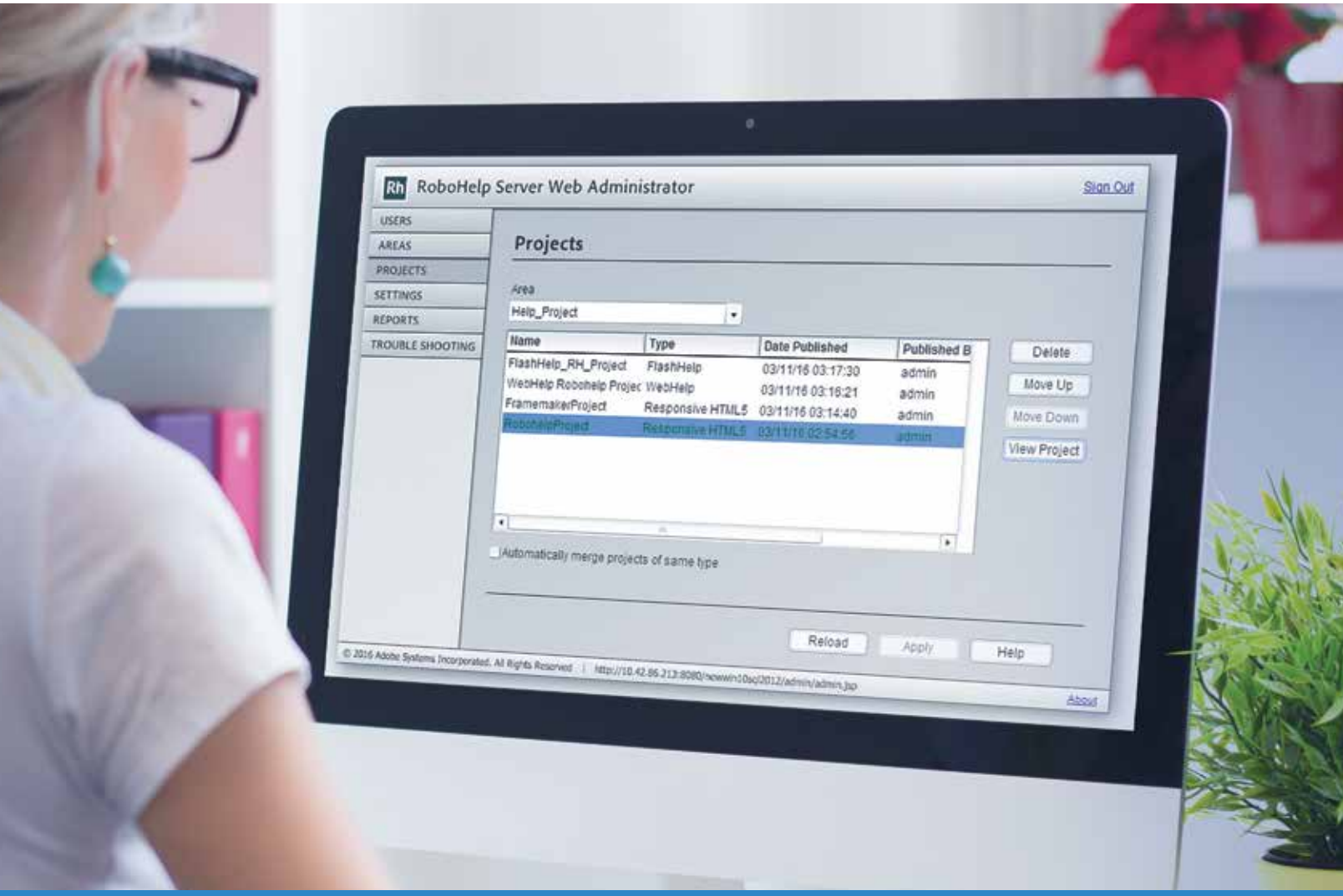
Although the noble efforts of the SS to "leave no port uncovered" prevented a recurrence of the former unfortunate incident, Peace Star II suffered a similarly ignominious fate. Apparently, it was unwise to leave the reactor core unshielded and open to space, thereby giving the rebel scum an opportunity to penetrate deep within the hull and initiate an Unscheduled Total Energy Emission from this powerful, efficient, and affordable new power source. Although our new policy of housing the technical communication staff with the project engineers had the laudable effect of spurring them to ever greater efforts to document every last aspect of the project, it had an unfortunate side-effect: getting too close to the product created what the forensics team described in their post-mortem report as "engineering tunnel vision."

We thought we had things fixed with the documentation team for Peace Star III. The content management and reuse team had wisely backed up their files via STCloud®, so there was no loss of information when Mark I and Mark II of the Peace Star were lost due to action by the rebel scum. This let the new team hit the ground running. However, the surviving members of PCS admitted, under careful interrogation, that the traditional mode of document engineering was slow, inefficient, and prone to a recurrence of such errors. Under pressure to come up with a better approach, a junior team member suggested the adoption of something known as "Agile" development. Although Senior Management (led ably by CTO Snoke) fully supported this effort by removing all obstacles to Agile adoption, and our Imperial Stormtroopers enthusiastically embraced the concept of "scrums", this approach also failed. Once again, the rebel scum managed to penetrate our defenses and cause premature termination of the Mark III.

We are left with the inescapable conclusion that somewhere within PCS, there is at least one mole. We therefore urge all employees to remain vigilant and to immediately report any suspicious behavior (e.g., object levitation, mind control attempts by non-managerial staff) to your team leader. If necessary, escalate that report to CTO Snoke.

Thank you for your cooperation.
Editorial Team, The Loop®

Adobe RoboHelp Server 10



Host and track HTML5 content created with Adobe FrameMaker and Adobe RoboHelp

All-new Adobe RoboHelp Server 10 is an all-in-one solution to ensure your content reaches more people and is more useful to them.

Visit our website to find out more:- http://www.adobe.com/products/robohelp-server.html

Adobe, the Adobe logo, and FrameMaker are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.
© 2016 Adobe Systems Incorporated. All rights reserved.